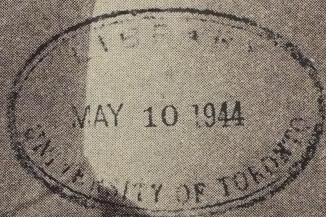


# CANADA AT WAR

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**The Cover:** Major Paul Triquet of Cabano, Quebec, second member of the Canadian Army in this war to be awarded the Victoria Cross, highest British decoration for valor.

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C A N A D A A T W A R

# Canada's Air Future



*"The demands of war have telescoped into four or five years the growth that might normally have taken air transport a generation to achieve. Canada's size is shrinking, while our long 3,000-mile frame is filling out as air transport opens up the Canadian north. All Canadians are becoming neighbours, and Canada is being given a new basis for unity. What is true of relations between the various parts of Canada is true also of relations between the nations of the world. These, too, are being brought closer together. Moreover, new regional connections are being developed, and the boundaries of old regions washed away. Because of the geographical location of the land masses of the earth . . . Canada occupies a strategic position, for it stands athwart most of the air routes linking North America with Europe and Asia. This position carries with it great responsibilities and great opportunities."*

HON. C. D. HOWE, Minister of Munitions and Supply.

**C**ANADA is the aerial cross-roads of the globe. Its strategic position on the air maps of tomorrow has developed in

Canadian people a strong air-consciousness and high hopes for the nation's domestic and international post-war air policy.

For more than four years the daily hum of training planes in Canadian skies and the exploits of Canadian airmen in enemy spheres have increased this consciousness to a degree undreamed of before the war.

Time and space have shrunk into fantastic minimums. The record across the Atlantic from Montreal to the United Kingdom is now 11 hours and 14 minutes. Ottawa is about 30 air hours from Bombay, and Winnipeg only 23 hours from Tokyo. The Soviet Union is virtually a next door neighbour over the pole. Global geography is radically changing the pattern of international relations.

### ***History of Civil Aviation***

Because of its great expanses and remote mining resources, Canada became a pioneer in civil aviation back in the 1920's. Supported by mining and petroleum industries and subsidized by government mail contracts, several air lines were developed to serve isolated communities. This embryo of "bush operations" was given impetus in 1927 when flying schools were organized across Canada to train pilots.

In 1930 a change in policy towards civil aviation brought a

cancellation of many air mail contracts. In 1933, as an unemployment relief measure, several airfields suitable only for single-engined planes were built.

In 1935 came a clearer definition of policy. The government could either develop a comprehensive air transport system to serve all parts of Canada or confine itself to regulation of commercial air operations and let private industry develop the expansion. The first alternative was adopted, and the Trans-Canada Air Lines Act was passed in 1937.

Originally the new system was to have been a joint enterprise between the government and private business. The Canadian National Railways, the Canadian Pacific Railway and Canadian Airways were to supply the capital for, and assume the ownership of, the air line company. The government was to build the necessary airports and communications system. The Canadian Pacific Railway and Canadian Airways withdrew their support, and the act was revised to vest full ownership with the National Railways.

### ***Progress of T.C.A.***

The work of building a chain

of modern airports and of gathering and training personnel went ahead vigorously, with the result that Trans-Canada Air Lines was placed in operation early in 1938. By the time war broke out its services extended from Vancouver to Moncton, Toronto to New York, Vancouver to Seattle, and Lethbridge to Edmonton. In the early war years military requirements made it necessary to extend the services eastward to Halifax, from Moncton to Sydney, on to Newfoundland, and westward to Victoria. Increasing traffic made the line a financial success. Its safety record is among the best of any air line operating anywhere.

In the six years since its formation to the end of 1943 T.C.A. aircraft flew more than 30,000,000 miles, carried more than 400,000 passengers, 1,500,000 pounds of express, nearly 9,250,000 pounds of mail (approximately 500,000,000 letters). In 1943 the number of passengers carried was up 34% over 1942, air express volume was higher by 126%, air mail volume was up 61%. Apart from the trans-Atlantic mail service for overseas armed personnel, some 200,000,000 air mail letters were carried. At present the company

is making a study of possible air line service to the West Indies and South America.

To prevent ruinous competition among northern privately-owned lines, an act was passed in 1938 which provided for the allocation of routes to the companies then in the field and forbade competition on these routes from newly formed companies. The war subsequently produced a sharp curtailment in traffic, particularly in shipments of mining materials, and these small operators were faced with the necessity of either closing down or finding a buyer. At this stage the Canadian Pacific Railway Company acquired the stock of all these independent companies, and to-day all air lines except a new company in the Maritimes, Maritime Central Airways, are owned either by Trans-Canada Air Lines or by Canadian Pacific Air Lines, a subsidiary of the Canadian Pacific Railway Company.

Trans-Canada Air Lines was set up as a non-competitive, non-profit air transport system to operate all the principal routes parallel to the international boundary as well as Canada's interests in all international routes. The field of routes into



the northlands and into areas complementary to T.C.A. operations was left to private enterprise.

### ***Post-War Employment***

Rapid development of air transport services is expected to offer post-war employment to many discharged Royal Canadian Air Force personnel. It is believed that feeder line operations and pioneer lines into the north can best be developed as small operations. Thus many returning airmen will be assured a place for their skill in the realm of small business enterprises.

To this end it has been decided that the railways must not exercise any monopoly of air services. Within a period of one year from the ending of the European war, transport by air will be entirely separated from surface transportation. It will be necessary to divorce T.C.A. from the Canadian National Railways and to operate it as a government company. In the meantime no new air routes other than government-operated ones will be allocated to air lines owned by any railway or other operator of surface transportation.

At present any expansion of Canada's civil aviation, except

to meet urgent air requirements, will be impossible, as all available equipment is required for existing services, and new equipment is impossible to obtain without diversion from the war effort. A further reason is that most of the young men who should have a prominent part in any such expansion are overseas on combat duty.

However, plans are being drawn up for expansion of domestic air line operations after the war. To this end the air services branch of the Department of Transport has been studying traffic possibilities for the purpose of planning new air routes.

### ***Aircraft Construction***

Prior to the war Canada had a small airplane construction industry. The need for providing training planes for the British Commonwealth Air Training Plan and later the need for building combat planes expanded this industry enormously. Now it is able to devote some attention to post-war transport airplanes.

One plane of pre-war Canadian design, the Noorduyn Norseman, is still the outstanding single-engine transport craft of the

present period and is being manufactured in large quantities for war transport purposes. Construction rights also have been acquired for the Douglas DC-4, a plane which experts consider to be the best plane of its type for the next five years. Manufacturing has begun at Montreal. It will not be released to Canadian air lines, however, until new planes of similar type are released to domestic air lines in the United States.

A small transport plane and a medium transport plane will be required as well, and several designs are being studied. Among them it is expected will be found two or three types which should have substantial use in Canada and which can be put into production quickly.

Canada is also interested in a trans-Atlantic type of plane of Canadian and British design, and the design is well advanced. It may be added to the types of planes which will be produced in the post-war. A vigorous aircraft construction industry is an essential complement to Canada's post-war plans.

To facilitate peacetime expansion further, a new board, the Air Transport Board, is to be set up. This will control the establish-

ment and licensing of new services; set rates and tariffs to be charged; recommend financial assistance needed; advise the government on the operating of existing airdromes and the need for new ones; and perform any other allied duties.

The end of the war will find Canada with some 200 airfields built to modern standards and of dimensions ample for serving domestic and international traffic. These airdromes are mostly adjacent to the centres of population, and many of them are now interconnected by communication services of the type necessary for day and night operations. One chain extends from coast to coast, while another reaches northward to Alaska and another eastward to Labrador and Newfoundland.

### *Northwest Staging Route*

The northern route to Alaska has been a most important war development. This "northwest staging route" is composed of a chain of main airdromes, with intermediary fields, extending from Edmonton to Alaska by way of Fort St. John and Whitehorse. Bush pilots who operated in the area in seaplanes in the early 1920's pioneered the route.

The initial development called for landing strips 3,000 feet in length by 500 feet in width, with provision for future extension for full size airports. Radio range stations were also located to provide radio beams. Thus when the United States entered the war in December, 1941, Canada was able to provide an airway to Alaska removed from the Pacific coast. During the war new landing strips and other works have been constructed.

When the United States decided to build the Alaska highway it followed the general route of the main landing fields along the airway. The fact that the air route was then operating facilitated the construction of the highway, and the existence of the highway has aided the operation of the airway.

The northwest staging route is Canadian property, owned and operated by the Canadian government. While it was built and developed by Canada with the wartime co-operation of U.S. Army engineers and workmen, the cost of the project is to be borne wholly by the government of Canada. The total cost to the end of 1943 was about \$46,000,000, while the total cost of wartime development of the airways

of the Canadian northwest will be about \$58,500,000. Approximately \$5,000,000 is to be spent extending the runways and making other additions to the airports at Edmonton, Grand Prairie, Fort Nelson and Watson Lake as part of a plan to equip the runways all along the northwest staging route to handle the heaviest planes that fly.

The route now is one of the most important in the world, both in relation to the war against Japan and, subsequently, as part of an international air route.

### *International Aviation*

Canada has already entered into several international air agreements. It was a signatory in 1919 of the original multilateral convention on the regulation of aerial navigation which came into force in 33 states, and of various amending and supplementary protocols from 1920 to 1929. The first major agreement on the operation of international air services in which Canada participated was that in 1935 and 1936, which dealt with the initiation of trans-Atlantic air services by the governments of the United Kingdom, Canada, Ireland and Newfoundland.



A British company, Imperial Airways, now known as British Overseas Airways, was to conduct experimental flights. A joint operating company owned by the United Kingdom, Canada and Ireland was to be set up. As the majority shareholder, Imperial Airways, was to control commercial, technical and operating matters. In return for landing and transit rights in the United States, similar rights were to be granted by each country to Pan-American Airways, a United States company. No other company would be granted similar rights for 15 years. Because of the war, Imperial Airways was never able to progress beyond experimental flights. Only Pan-American has been able to develop the service envisaged by this agreement.

Various other trans-Atlantic services have been set up outside the agreement to meet war-time exigencies. American Export Airlines is operating a regular commercial transport service. The air transport commands of the United Kingdom and United States are operating frequent non-commercial services.

After Trans-Canada Air Lines extended its transcontinental commercial service to Newfound-

land in 1942, the Canadian government initiated a regular non-commercial service across the north Atlantic by agreement with the British government in July, 1943. This was established solely for war purposes, to carry only official passengers and freight—particularly troop mail. It was set up only for the duration and six months after. The planes are provided by the government, and T.C.A. operates them and provides crews. The R.C.A.F. has also established direct mail service from Canada to the United Kingdom and to the Mediterranean war fields.

Because of this expansion and the fact that the joint-operating company was never established, Canada has notified the other signatories of the 1935 agreement that it can no longer be considered applicable.

### ***Cross-Border Traffic***

In 1938 and 1939 agreements were signed with the United States to facilitate the movement of cross-border traffic by standardizing technical practices and certificates of competency in the two countries; also by allowing air carriers of each country to operate non-stop over the terri-

tory of the other between two domestic points in the same country.

Further arrangements in 1940 lay down the basis under which air services between Canada and the United States are at present operating. Lines were allocated to various United States companies and to Trans-Canada Air Lines to facilitate trans-border and frontier services between the two countries.

Several wartime agreements have been concluded between Canada and other countries for the operation of special wartime transport. For example, Pan-American Airways has been given a temporary permit to operate over Canadian territory between Seattle and Alaska. At the time this permission was renewed on January 26, 1944, the Canadian government informed the United States government that it proposed to ask for permission in the future for a Canadian permit to operate into Alaska.

While the Civil Aeronautics Board in the United States may examine applications from United States air lines for new air services to Canada from the United States, any new services on a commercial basis between the two countries cannot be in-

itiated without the consent of the two governments. Canada does not, under existing agreements, consider applications from air lines of another country unless forwarded by the government of that country through regular diplomatic channels.

The sovereignty of the Canadian government has been protected in all arrangements that have been made. Special wartime arrangements will come to an end at or shortly after the cessation of hostilities. It is the view that a liberal course of co-operation with other nations is essential while at the same time Canada's own interests are looked after; that air transport has become more than just the latest and fastest method of transportation for it has had and will have a profound effect on the economy, prosperity and security of the peoples of the world.

### ***International Convention Proposed***

With these factors in mind Canada has taken a lead in proposing an international air transport convention to eliminate pre-war rivalries and overlapping costs and to outline an international framework whereby collaboration would further



the prospects for a lasting peace. The responsibility of the United Nations in post-war air planning is a vital one. If successfully discharged it can constitute a model for the settlement of other difficult international problems and can establish machinery in which the settlement of other problems would become easier. On this Canada is determined to make as great a contribution as possible.

In broad outline, the convention proposed by Canada would set up an international air transport authority for:

1. The furtherance of international co-operation and good-will.

2. The ensurance that international air routes and services be divided fairly and equitably among all member nations.

3. The meeting of the needs of the peoples of the world for efficient and economical air transport.

4. Assistance in the establishment and maintenance of a permanent system of general security.

Among chief points of the proposed convention are the following:

1. The convention would establish an international air transport authority, give it a constitution and endow it with powers. In each region a regional council would be set up to deal with matters of local concern.

2. Since this convention is intended to be between states, the number of air lines within any member state engaged in international air transport services would be a

matter wholly of domestic concern, as would also the problem of whether these air lines were owned by the government or privately.

3. A world security organization, if and when established, would have the power to direct the air transport board to:

- a. Suspend, withdraw or modify licenses.

- b. Take measures concerning technical services, operating facilities and leases or set up operating mechanisms to operate the air services on certain routes or in certain regions.

4. To cover the interim period during which this organization was being set up, certain temporary arrangements would be made. Existing rights of companies already engaged in international air transport would not be immediately terminated. These companies would be given two years to obtain licenses from the authority. Air line companies designated in a schedule to the convention would be considered as holding licenses issued by the authority to operate routes designated by the authority, until such licenses were modified or withdrawn by the board or regional council.

These proposals have been the crystallization of informal and exploratory discussions on international civil aviation policy. Canada participated in a preliminary exchange of views in London in October, 1943, and informal preliminary talks took place recently between representatives of the Canadian and United States governments. These were to be followed by United Kingdom-United States discussions in London.

# Health Service Survey



**A**N over-all picture of Canada's existing health services is given in a report of the Canadian Medical Procurement and Assignment Board, tabled in the House of Commons on March 13, 1944. The primary function of the board, which was set up in July, 1942, was to determine the number of medical personnel available to the armed forces and at the same time to try to preserve adequate medical ser-

vice for civilians. The resulting complete and detailed study of all branches of medical service together with recommendations for the improvement of existing conditions will enable the government to tackle present problems and plan for the future.

In all branches of medicine civilian demands have increased in inverse ratio to services available. The war has recruited only the healthy and left the physi-



cally weaker in disproportionate numbers. The birth rate has considerably increased, and the old-age population is increasing (the Dominion Bureau of Statistics estimates that the number of persons 60 years of age and over will increase by 20% in the next 10 years). The old and the very young require most medical care. During wartime there is a greater threat of epidemics, especially in the crowded industrial centres. At the same time the increase in

national income and economic means has boosted the demand for medical service.

### **40-Year Increase**

Although the number of physicians has more than doubled in the last 40 years, the ratio of increase has not kept pace with the growth in population. The following table shows the number of physicians and their ratio to the population from 1901 until 1941:

Year	Physicians(1)	Population	Population per Physician	Physician per 1,000 Population
1901...	5,475	5,371,315	981	1.02
1911...	7,411	7,206,643	973	1.03
1921...	8,706	8,787,949	1,010	0.99
1931...	10,020	10,376,786	1,036	0.97
1941...	11,130(2)	11,506,655(3)	1,034	0.97

(1) Retired physicians excluded.

(2) 10% sample. 1941 census showed 10,018 physicians; in addition there were 1,112 physicians serving in the armed forces at the same time.

(3) Includes both civilian population and strength in the armed forces.

Of the 11,620 physicians active in March, 1943, 3,006 were on active service (compared with the 1,112 in the armed forces in 1941) leaving 8,614 or 74% to serve the needs of the civilian population. Of this percentage, only 41.7% were under 45 years of age.

Including those who have retired, 2,251 physicians were classified as available for other

service better suited to present needs; 1,249 of these were potentially available for military service, and 1,002 for civilian medical services associated with the war effort.

### **Postpone Retirement**

Six hundred and fifteen physicians, or 6.7% of the civilian physicians (5% of the total number) had retired by March,

1943. A considerable number have returned to civilian practice, and many practising doctors have postponed their retirement. Medical schools have called back 23 retired doctors to teach—or 2.5% of the total full-time and part-time staffs of medical schools.

In urban centres and high income localities the ratio of physicians is comparatively high, while some rural areas are virtually without doctors. In New Brunswick and Saskatchewan the ratio of population per physician exceeds 2,000, and in Prince Edward Island and Alberta, 1,500. The ratio of enlistments is roughly comparable in each province except Quebec, whose medical situation on the whole has improved, especially in relation to other parts of Canada. Ontario and British Columbia are in a fairly favorable position, but the shortage faced by the other provinces is severe. Provided that present health conditions are maintained, the board felt that the over-all

supply of physicians might be sufficient, but in the event of an epidemic the situation would be serious.

The main problem seems to be one of distribution rather than quantity of doctors. In 1931 Canada's ratio of population per physician was second highest in the world:

Country	Population per Physician
United States.....	794
Canada.....	1,036
United Kingdom...	1,069
Germany.....	1,307
Denmark.....	1,346
Norway.....	1,555
Sweden.....	2,660

### *More Students Graduate*

The accelerated curricula in Canada's nine medical schools have resulted in the graduation of one class every eight months. At present this means that an average of 745 annually (540 one year, 950 the next) will graduate, as opposed to an average of 556 from 1940 to 1942 inclusive. This program has been handled by considerably reduced staffs, as shown in the following table:

	September 1939	March 1943	% Decrease
Full and part-time instructors.....	1,063	939	11.7
Full-time instructors....	173	141	18.5



The strain of the year-round courses on both staff and students has been found to be too much, and several schools have already announced the discontinuance of the accelerated course.

The survey of the physicians in the armed forces showed 4.5 physicians for every 1,000 service men and women in 1943. Provided that overseas needs were not increased, the board felt that a ratio of 3.5 to 3.7

would be sufficient. As civilian needs were more strained than service needs, suggestions were made for restricting enlistments, controlling the distribution and possible redistribution of doctors, and using some service physicians to help with civilian work.

### ***Fewer Dentists***

The survey of dental personnel showed the proportion of population per dentist as follows:

	Practising Dentists	Total Population per Dentist
1938.....	4,174	2,685
February, 1943		
(civilian)....	3,284	3,477
February, 1943	} 4,294	
(armed forces). 1,010		669 (service population only)

The total number of dentists in 1943 was 78% of the peacetime dental manpower. Allowing a reduction of 12.5% for the aged and physically disabled dentists included, this brought the supply down to about two-thirds of the normal requirements. At the same time the demand had increased 25%. By means of careful control and selection of enlistments, it was estimated that 678 dentists could be spared between 1943 and 1945 for the services. This would reduce the civilian supply to

70% (or 61% in terms of actual dental manpower) of the pre-war level. Any further reduction would, however, be serious.

### ***Hospital Population Up***

Between August, 1939, and January, 1943, there was an increase of 10.4% in the number of hospital beds and 10.8% in full-time hospital personnel, 35% in part-time personnel and 52.2% in paid ward aides, but the daily patient census showed an increase of 18.9%—almost double the increase in accommodation—

and there is still a shortage of hospital personnel of all kinds.

The following table shows the increase in the number of persons

admitted to hospitals has been considerably larger than the increase in personnel and equipment:

	1931	1940	% Increase
Hospitals.....	864	1,173	35.8
Bed accommodation.....	85,801	122,302	42.5
Persons admitted to all hospitals.....	603,727	1,045,211	73.1
Persons under care during year.....	737,169	1,149,726	56

### Shortage of Nurses

A survey conducted of the nursing profession showed a total of 52,483 graduate nurses in March, 1943. The enlistments at that date were 2,008; in February, 1944, enlistments totalled 2,742. Of the total number of nurses, 22,136 or 42% were practising their own profession, and 16,818 of those otherwise employed (including housewives) registered as being available for full-time, part-time or emer-

gency service. All institutions except mental hospitals and sanatoria showed an increase in their nursing personnel since the outbreak of the war (23.1% increase in graduate nurses in general hospitals and 28% increase in general duty nurses). There is still, however, a marked shortage.

The following table shows the total number of nursing personnel in organizations and institutions in February, 1939 and 1943:

	Registered and Graduate Nurses	Students	Aides	V.A.D.'s(1)
February, 1939..	10,834	8,416	1,320	51
" 1943..	14,100	10,587	2,937	816
	(+496 mental hospital graduates)	(+398 mental hospital students)		

(1) Voluntary Aide Detachment personnel have been drafted into military hospitals in a proportion not exceeding one V.A.D. to two graduate nurses. The board recommended that they be used more widely.

Similar shortages were found in the surveys made of public health personnel and industrial medical staffs.

Despite the shortages and the

strain imposed on medical facilities by war, the report said:

"There is no evidence that the general health of the people as a whole has materially worsened since 1939."



# ***Fighting Forests***



**T**HE forests of Canada have contributed greatly to the striking power of the allies in the war. Hundreds of millions of board feet of Canadian lumber have gone into the construction of boats, barges and emergency training structures. From Canadian red pine comes the famed Mosquito plane—the high-speed all-wood fighter bomber which is nightly over Germany. Sea-plane floats and moulded plywood fuselage for Anson training planes, wooden minesweepers and miles of laminated wooden drains for airports are but a few of the wartime jobs done by Canadian wood.

Pulpwood has gone to the front lines too—in shell casings, in thousands of packagings for the safe delivery of food, delicate instruments, clothing, gas masks, medical kits and blood plasma for the troops. Cellulose is nitrated into a smokeless gunpowder, and every ounce used by the Canadian and British armies is produced in Canada from Canadian wood.

Wood plastics substitute for metal in parts of electrical apparatus, radios, components for land and sea mines and in submarine detectors.

Thousands of tons of Canadian newsprint is used by allied forces overseas and in the dissemination of allied information throughout war-torn Europe. Future requirements will undoubtedly increase as the military campaign in Europe develops and further areas are liberated.

## ***Supplies Maintained***

What is the story behind Canada's wartime forest production? How has the nation coped with the problems of diminished manpower and increased unit overhead costs while maintaining an adequate supply for its own use and for export?

Logging and pulpwood cutting require active men of the type recruited by the armed services in large numbers. They are highly seasonal occupations, and in wartime the attraction of

steady employment at high wages in munitions production and wartime construction has been strong. One of the results of this labor shortage has been a drop in output since 1941 in the face of a greatly expanded demand for lumber and pulp products. It has also resulted in rising wages and the employment of less efficient labor.

In recent months there has been some easing of the labor shortage. Steps were taken to increase the labor force in the woods by granting special labor priority rating to pulpwood cutting. National Selective Service conducted an intensive publicity campaign to induce farmers to go into the woods for the winter, and local authorities co-operated to obtain as many men as possible for work in the forests. Pulp and paper companies were permitted to employ their own labor canvassers, and prisoners of war were put to work.

### ***Compensation Allowed***

The lumber industry was granted some earlier price increases, and in August and September, 1943, the price and subsidy structure was revised to permit the application through-

out Canada of a single subsidy system. To prevent the increase in retail prices from putting pressure on the cost of living, individual civilian consumers were given a certain compensation by the retailers who were, in turn, reimbursed by the government Commodity Prices and Stabilization Corporation.

While the demand for lumber has increased, production has decreased from 4,941,000,000 board feet in 1941 to 4,640,000,000 in 1943. Production in 1944 is estimated at 4,350,000,000 board feet. The 1943 figure is in excess of original estimates and reflects the many steps taken during the year to increase the labor force in the woods. It is also in excess of the annual peacetime production of slightly less than 4,000,000,000 board feet. Exports have declined from 2,300,000,000 board feet in 1941 to 1,900,000,000 board feet in 1943, while domestic consumption, including military requirements, was virtually unchanged.

The 1943 cut was distributed as follows:

	<i>Board Feet</i>
In Canada for direct war use . . . . .	1,400,000,000
For indirect war use and for essential civilian use, includ-	

ing railways, agriculture, housing and industry . . . . .	1,340,000,000
Shipped to United Kingdom for war use . . . . .	1,000,000,000
Shipped to United States for war use . . . . .	800,000,000
Shipped to British countries other than United Kingdom for direct war use . . . . .	100,000,000
TOTAL . . . . .	4,640,000,000

In 1944, overseas requirements for the United Kingdom and other combat areas will increase greatly. Requirements of the United States for war purposes will also continue at a high level. Some falling off in war requirements in Canada is anticipated because of the completion of a major part of the military construction program of the total estimated production for 1944, 1,980,000,000 board feet will be exported, leaving for consumption in Canada 2,370,000,000 board feet. The larger supply which will be available for use in Canada will permit considerable easing of the restrictions in the use of lumber.

The supply of lumber is the responsibility of the Department of Munitions and Supply, but the Wartime Prices and Trade Board is responsible for the supply of civilian goods based

on lumber. Decreased production and high military and export requirements have caused serious problems in the civilian field. In several cases the board has bulk purchased articles that would otherwise not have been available to the civilian economy.

There has been little scope for conservation measures to reduce the amount of wood used in various products. For the most part the tendency has been in the opposite direction, for wood has been substituted for metal in various machines and durable goods. However, recent improved supplies of certain metals have made it possible to substitute metal for wood in some cases; for example, the increased metal quota for furniture will release some hardwood lumber and fibrewood.

### ***Wood Pulp, Newsprint***

Canada and Newfoundland are the chief exporters of wood pulp and newsprint among the United Nations. The United Kingdom and the United States as well as other allied nations are dependent on Canadian supplies to a great extent. In view of the international significance of pulpwood and newsprint, a pulp and paper committee was



set up jointly by the Combined Production and Resources Board and the Combined Raw Materials Board in August, 1943. The committee consists of three members representing the United States, Canada and the United Kingdom, and its function is to correlate the facts concerning "the requirements and supplies, uses, production and distribution of the pulp and paper industries" of the three countries. The actual regulation of exports of pulp-wood, pulp and newsprint to the United States is a matter of close co-operation between the Wartime Prices and Trade Board in Canada and the War Production Board and Office of Price Administration in the United States.

The shortage of labor in the woods has been reflected in a progressive deterioration in the supply of newsprint and other pulp products. Aside from the measures previously mentioned to offset this shortage, the prices board took steps to reduce Canadian requirements of wood pulp to a minimum, and the supply of wood pulp for newsprint was extended by the use of clay filler and waste paper. Among these was an extensive paper conservation campaign.

### ***Restrictions On Paper***

More formal measures have been taken to restrict the manufacture and use of paper. The first of these was the registration of manufacturers in the wood pulp industry and the control of the kinds, sizes, qualities and quantities of the products. The second was the placing of certain restrictions on the manufacture of paper and fibre products. The general object of reducing the variety of products and eliminating non-essential operations was obtained. Production of book, writing and specialty papers, greeting cards, wrapping paper, cashier pads, facial tissues, paper board cartons and corrugated shipping cartons was simplified. The last three months of 1943 saw an increasing shortage of raw material, so earlier restrictions were amplified and augmented by new ones.

### ***Quota Rationing Extended***

The third device for economy was applied in the end use of paper products. The system of quota rationing of newsprint that had been in force for newspapers and periodicals since January, 1943, was extended in July to several other publications.

The order did not affect non-profit organizations or publications assigned quotas under previous orders, or the publication of books, maps, charts and music. While government bodies are also exempt from this order, drastic programs of paper conservation have been instituted. Further orders simplified packaging.

Newsprint manufacturers were seriously affected by the rising costs of pulpwood production. More than 90% of the industry's output is exported, so the necessary price increases were authorized only after consultation

with price authorities in the United States. Two increases each of \$4 a ton were authorized in 1943 above the level of the basic period, Sept.-Oct. 1941.

### *Higher Than Expected*

As a result of these measures it was possible in December, 1943, to set production quotas for the first six months of 1944 higher than would have been considered possible a few months earlier.

Monthly newsprint quotas for the first six months of 1944 compared with monthly quotas of the last six months of 1943:

	First six months 1944 (tons)	Change from last six months 1943 (tons)
Newsprint available for United States.....	200,000	-10,000
Newsprint available for export overseas.....	37,500	+7,500
Newsprint available for Canadian consumption	15,400	-600
TOTAL.....	252,900	-3,100

Exports of newsprint to the United States, although lower, will still be 9% above the level in 1939 and 5% above the average for the years 1935-39.

Woodpulp exports to the United States will be at an annual rate of 1,100,000 tons for the first six months of 1944. This annual rate is 180,000 tons

less than shipments in 1943, but is higher by 88% than average annual shipments in 1935-39.

Canada has thus been enabled throughout the war to fulfill commitments to the United States and maintain the contract shipments of newsprint and pulpwood, which have been consistently above the pre-war level.

# Facts and Figures



## NAVY

*"The year that has passed (1943) marked the most successful defence ever made by our ships of war, both surface ships and air, against the attacks of submarines; and it saw the greatest number of submarine destructions ever recorded in a similar period. The Atlantic campaign is not yet won, but no one can deny that the tide of that campaign turned definitely in our favor during the year."*

HON. ANGUS L. MACDONALD, *Minister of National Defence for Naval Services.*



Present strength.....	more than 80,000
	(W.R.C.N.S. included)
Pre-war strength.....	more than 1,700

**P**ROTECTING allied convoy routes and carrying invasion forces to enemy shores have taken ships of the Royal Canadian Navy far from home waters. Seven Canadian corvettes and a flotilla of motor

launches saw duty in the Caribbean area; Canadian ships took part in the campaign for the Aleutian Islands; four Canadian landing craft flotillas were in the Sicilian and Italian invasions; Canadian Tribal destroyers have



seen duty with convoys to North Russia and were with the convoys attacked off Bear Island at the time of the sinking of the German pocket battleship *Scharnhorst*.

The North Atlantic convoy routes to the United Kingdom have been called "the lifeline of Europe." The R.C.N., with the Royal Navy, is responsible for the guarding of these routes. In the last two years Canadians have supplied sometimes as high as 48% of the convoy escort and never less than 40%. Since the beginning of the war the R.C.N. has escorted more than 18,000 ships from North America to Europe—about 114,000,000 deadweight tons of shipping—and about 10,000 ships from the United Kingdom to America.

Another 20,000 ships in Canadian coastal convoys (going from one port to another on the North American continent) have been escorted almost entirely by ships of the Canadian navy.

In 1941 one of every 181 allied ships that sailed was lost; in 1942, one of every 233; in 1943, one of every 344. The proportion of ships reaching their destinations safely in 1943 was nearly twice as great as in 1941.

More than 200 U-boats, mostly German, were destroyed by the allies in 1943—more than the total number destroyed in World War I. Canadian ships participated in the destruction of eight of these and the probable sinking of seven others. During the year no submarine attacks were made in the St. Lawrence River or Gulf.

However, despite conspicuous success in the U-boat campaign, the threat to allied shipping has not disappeared. During 1943 the Canadian navy lost four of its ships of war.

R.C.N. casualties from the beginning of the war to March 9, 1944, stood at more than 1,300. In tendering the sympathy of the House of Commons and of the nation to the relatives and friends of these men who died in their country's service, Navy Minister Macdonald said:

"Their lives have been a source of inspiration. Their deaths have been models of gallantry and courage."

Personnel of the Royal Canadian Navy has increased from about 1,800 at the beginning of the war to a present strength of approximately 80,000—a 45-fold increase. In 1943 alone, 27,000

persons were added. About 40% of the men in the R.C.N. are serving at sea; a large number of those on shore have had sea service. Others ashore are undergoing training or are carrying on administrative, instructional or professional duties.

The total complement at the end of the year ending March 31, 1945, is expected to be about 12,000 men more than it was at March 31, 1944, allowing for discharges and casualties.

Enlistments in the Canadian navy have come from every part of the Dominion. Following is a table showing enlistments from September 1, 1939, to December 31, 1943:

	Officers	Ratings
Prince Edward Is- land.....	53	1,210
Nova Scotia.....	592	5,663
New Brunswick...	140	2,103
Quebec.....	1,231	9,268
Ontario.....	2,044	29,958
Manitoba.....	262	5,979
Saskatchewan.....	168	4,965
Alberta.....	196	5,778
British Columbia..	1,068	8,672
Other sources, in- cluding United States and New- foundland.....	192	323
	<hr/> 5,946	<hr/> 73,919
Total.....		<hr/> 79,865

The increase in personnel of the R.C.N. during the war has

been paced by the increase in ships. From six combat ships at the beginning of the war, the Canadian navy has grown to 250; from seven auxiliary vessels, to 450. Thus there has been a 54-fold increase in the number of ships. Two of the 70 fighting ships added in the last 14 months have been Tribal destroyers, the newest and fastest type of destroyer afloat.

During 1944 the navy hopes to acquire from the British Admiralty two modern cruisers and two aircraft carriers. These ships will add to the strength and effectiveness of the Canadian navy and will give R.C.N. sailors experience in handling larger ships. The aircraft carriers will be manned by officers and ratings of the Canadian navy, and the planes and fliers will be provided by the Royal Navy.

Besides these larger vessels, the R.C.N. hopes to add about 100 other fighting ships as well as a considerable number of auxiliary craft to its strength this year.

The expanding strength of the navy made correspondingly heavy demands on Canadian naval bases. In September, 1939, there were only two naval bases

in Canada, one at Halifax on the east coast and the other at Esquimalt on the west coast. Today these two bases have been greatly expanded and improved, and in addition 11 new bases have been developed on the east and west coasts and in Newfoundland.

At one of these the R.C.N. has put in operation a great floating dock capable of accommodating ships of 25,000 tons. Three marine railways have been constructed at various points capable of carrying for repairs the largest destroyer, and another similar marine railway is building. The R.C.N. has built also three smaller marine railways that can carry corvettes and minesweepers. Other marine railways have been built for lighter craft of the R.C.N.

Modern naval warfare involves the operation of technical gear, and to conduct this warfare successfully great attention must be paid to training. Training in the R.C.N. is divided in two main categories. First is the basic or "new entry training" given to new recruits. This is begun at naval reserve divisions located in principal Canadian municipalities and completed at

H.M.C.S. *Cornwallis*, large R.C.N. training base at Deep Brook, Nova Scotia.

Technical instruction comprises the second main training phase. Since the beginning of the war 4,400 naval ratings have been trained in civilian schools as plumbers, electricians, radio artificers, internal combustion engine mechanics, welders, copersmiths, boilermakers, machinists. In addition, more than 1,000 are now undergoing such training in civilian schools at Halifax, Fredericton, Kingston, Toronto, Hamilton, Galt, Windsor, Calgary and Edmonton.

With the co-operation of 15 Canadian universities, the navy in the spring of 1943 initiated a university naval training scheme. There have been more than 1,500 entries in these courses. Of these, 150 have been taken on active service as ratings, 38 have been discharged, and about 1,200 remain in the universities. More than 250 of these will go on active service at the end of the present school term.

The Royal Canadian Naval College was opened at Royal Roads, British Columbia, on October 21, 1942. In the first term 100 students were enrolled,



50 for a one-year course and 50 for a two-year course. In the spring of 1943, 43 midshipmen were graduated. Of this number, 27 have been selected for permanent membership in the Royal Canadian Navy, and they are now serving in large ships of the Royal Navy. The other 16 of the graduating class joined the Royal Canadian Naval Volunteer Reserve and are serving at sea as midshipmen on Canadian ships.

All new officers in the executive (combatant) branch must enter the service as ordinary seamen and serve on the lower deck. On the recommendation of his commanding officer a man may be sent for a short selection course at H.M.C.S. *Cornwallis*, followed by an appearance before the permanent promotion board. Success means a commission as a probationary sub-lieutenant and entry to King's College for the prescribed four-months officers' training course there.

Canada's west coast Fishermen's Reserve is being disbanded. The reserve was organized in 1939 and consisted of men drawn from the British Columbia fishing industry, chosen particularly for their intimate know-

ledge of Canada's long and irregular western coastline.

Immediately after Canada's declaration of war against Japan, the Fishermen's Reserve had charge of rounding up all Japanese fishing boats operating off the British Columbia coast. About 1,000 were taken in custody. Boats of the reserve brought into the service by the fishermen themselves were assigned the duty of patrolling the 5,560 miles of irregular bays, inlets and islands of the coast. Minesweeping was another job undertaken.

Complete disappearance of the menace from Japanese boats to Canada's safety, together with the vast increase in strength of Canada's regular navy, are the reasons for disbanding the reserve. Its members will have an opportunity to join either the Royal Canadian Naval Reserve or the Royal Canadian Naval Volunteer Reserve or to return to fishing. Most of the craft of the reserve are to be returned to their owners, but some 30 boats will be kept by the navy for use on patrol.

Heroism and devotion to duty of R.C.N. personnel have been recognized by many awards and decorations. Following is a list

of operational awards won by officers and ratings of the Canadian navy from the beginning of the war:

Order of the British Empire...	20
Member of the Order of the British Empire.....	10
British Empire Medal.....	32
Distinguished Service Order...	7
Distinguished Service Cross....	49
Distinguished Service Medal...	29
Conspicuous Gallantry Medal..	1
George Medal.....	6
Polish Cross of Valor.....	4
Norwegian War Medal.....	2
Greek War Cross, 3rd Class...	1
Czechoslovak Military Cross, 1939.....	3
Commendations.....	7
Legion of Merit in degree of Legionnaire (United States award).....	1
Mentions in Despatches.....	280
	452

Following is a record of all non-operational awards granted to members of the naval service since the outbreak of hostilities:

Order of the British Empire...	8
Member of the Order of the British Empire.....	17
British Empire Medal.....	13
Companion of the Most Honorable Order of the Bath.....	3
Commander of the Order of the British Empire.....	6
Associate Royal Red Cross....	3
Royal Humane Society.....	3
Bar Palestine.....	6
Commendation.....	6
King's Dirk.....	1
Albert Medal (life saving)....	1
	67

*Operations of the Women's Royal Canadian Naval Service are described under "Women," page 45.*

## CANADIAN MERCHANT SEAMEN

Registered with central registry of Department of Transport	45,782
Merchant seamen's identification certificates issued (required by any seamen going outside Canada, including the United States).....	30,125
Merchant Navy badges issued (only to seamen who have been casualties of enemy action or who have operated in "dangerous" waters for three months).....	4,381
Memorial Crosses issued to widows and mothers of seamen ..	208
Personnel of ships of Canadian registry and Canadian seamen serving on other ships who are missing or lost at sea as a result of enemy action:	
On Canadian vessels.....	622
On other vessels.....	315
	937
Canadian merchant seamen detained by the enemy:	
From vessels of Canadian registry.....	129
From vessels of other registry.....	55
	184
Disability pensions being paid to Canadian merchant seamen by the Canadian Pension Commission.....	34
Dependents of Canadian merchant seamen being paid death pensions by the Canadian Pension Commission:	
Adults.....	377
Children.....	244
	621



## ARMY

*"Canadians in that tough and heroic fight at Dieppe marked the first turn of the tide toward the land offensive in northwestern Europe. Canadians in Sicily and Italy helped to mark the first turn of the tide toward the land offensive in southern Europe; Agira and Ortona, to mention only two of many, were epic battles in Canada's war story. But some of the greatest battles of the war are still to be fought, and Canada will be in the thick of it, on sea, on land and in the air."*

HON. J. L. RALSTON, Minister of National Defence.



THE Canadian Army Overseas has been available to be used, in whole or in part, as would best serve the allied cause. Today it finds itself on two fronts. In Italy its troops are in the thick of hard fighting. In the United Kingdom they are engaged in preparations for the invasion of northwestern Europe.

No commitments have been made as to the nature or extent of Canada's participation in the

war against Japan. However, the army recognizes fully that Canada is at war with Japan and is making plans accordingly. Canada as a Pacific power will remain in the war until Japan is subjugated.

The army that is in the United Kingdom and Italy consists of one army headquarters, army troops, two corps headquarters, corps troops and five divisions.



## ARMY PERSONNEL STATISTICS

Pre-war strength.....	more than	4,500
Present strength.....	" "	465,000

### EUROPEAN ZONE

Strength at December 31, 1943, including more than 700 members of Canadian Women's Army Corps.....	" "	240,000
Personnel sent overseas during year ended March 31, 1944.....	" "	70,000
Projected number to be sent overseas during year ending March 31, 1945.....	" "	48,000

### WESTERN HEMISPHERE

Strength in Canada, Newfoundland, Labrador, Alaska, West Indies and Caribbean, including more than 12,000 members of Canadian Women's Army Corps.	" "	227,000
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Operational.....	more than 55,000 including 35,000 personnel called up under National Resources Mobilization Act	
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Non-operational.....	" "	75,000	"	11,000	"
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In training.....	} " "	75,000	}	14,600	"
At depots awaiting disposal.....				6,400	"

On long-term leave in agriculture, mining and industry.....	" "	8,000	"	5,300	"
	" "	215,000	"	72,300	"

General service personnel in units and training centres in Canada available as overseas reinforcements.....	60,000
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National Resources Mobilization Act personnel in Canada available as overseas reinforcements if emergency arises and if necessary action be taken.....	50,000
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Projected intake from manpower pool during year ending March 31, 1945:	
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For general service.....	48,000
Under National Resources Mobilization Act	12,000

60,000

Reserve Army strength.....	about 100,000
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Canadian Women's Army Corps strength.....	" 14,000
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While for organizational purposes troops are divided in groups and are known as divisional, corps, army, line of communication and general headquarters troops, units included in these groups do not necessarily fight with and serve only the units within that particular group.

The army headquarters consists of officers and other ranks having to do with the operational and administrative control of the formations and troops which go to make up an army.

A corps consists of a headquarters, certain corps troops and two or more divisions. The corps headquarters is so organized that it can direct and administer two or more divisions.

Corps troops are provided on the basis of a certain proportion for each division allotted to the corps.

The Canadians in Italy are a self-contained corps with autonomy and self-dependence equivalent to the Canadian corps in World War I. To this corps, which is a part of the British Eighth Army, are allotted two divisions, an armored formation and a proportion of army troops. In addition, in Italy there is one

unit of Canadians in the Fifth Army.

The corps in Italy is contributing many officers to the organization which is going on in the United Kingdom in order that Canada may take part in the forthcoming great offensive.

In the United Kingdom are the army headquarters and a corps with appropriate quotas of army and corps troops. There are reinforcements, hospitals, the forestry corps, base installations, ordnance workshops and depots, the Canadian Women's Army Corps and administrative services. These all have their tasks and are training to fit into the plan of operations.

The army headquarters and army troops are in a position to direct, administer and support the Canadian corps there along with other formations of British or other allied troops which may be put in the same army organization. Any allied formations placed under the control of the army headquarters would bring with them the appropriate proportion of corps and army troops for their support.

Although a part of the army has been fighting since July,

1943, when the conquest of Sicily began, the reinforcement pool overseas is well up to the planned original full strength. This pool was that which was estimated to be adequate to meet battle casualties. The supply will continue to be replenished by the despatch of further reinforcements from Canada as required.

One difficulty is the matching of supply with requirements of all the different types of tradesmen. Thirty-five per cent of the army today is in the various trades, of which there are more than 200, many highly specialized. The adaptability of young men and the presence of tradesmen generally throughout the army, however, somewhat counteract the difficulty of obtaining from the population so large a percentage of skilled men, particularly when the needs of war industry are high.

For the year ending March 31, 1945, it is proposed to provide an average of 4,000 general service men a month for the reinforcement pool overseas and to aim at an intake of an average of 4,000 general service men a month for the training stream in Canada.

Casualties have been as follows:

Hong Kong.....	nearly 2,000
Dieppe.....	more than 3,350
Sicily and Italy up to January 31, 1944.....	7,520

TOTAL..... 12,870

The casualties in Sicily and Italy were as follows:

Deaths.....	1,606
Missing.....	303
Prisoners of war.....	51
Wounded.....	5,560

TOTAL..... 7,520

The troops in Canada are divided as operational, non-operational, in training and at disposal and selection centres. At these last depots men are stationed for the time being for the purpose of being discharged or of being posted to other tasks.

In Canada there are three brigade groups on the west coast, one of which joined with United States forces in August, 1943, in reoccupying the island of Kiska in the Aleutians. The brigade groups are needed because certain scales of attack on this continent still are considered a possibility. There is a training brigade in eastern Canada, and there are a few infantry battalions. There are troops in Labrador,



Newfoundland, the Caribbean and West Indies and a few in Alaska.

The endeavor has been to train these operational troops as flexibly as possible. They are trained for the defence of Canada as well as to provide reinforcements if they are needed overseas. They are trained also—and this applies particularly to the Kiska force—for special duties in the Pacific should action make these duties necessary and should the decision be made to send them there.

The operational troops are on the east and west coasts, in coast and A.A. artillery batteries, infantry battalions and in all the posts which are considered necessary to meet any possible scale of attack. The troops being sent overseas as reinforcements are drawn from the training stream and from operational units. The latter are retrained when necessary before being sent overseas and are replaced by National Resources Mobilization Act personnel.

A part of the army is composed of men called up under the National Resources Mobilization Act for compulsory military training and service in Canada

and its territorial waters and who by order-in-council may be despatched to areas outside Canada. Such troops formed a large proportion of the Canadian contingent at Kiska.

These N.R.M.A. men are trained and fit for reinforcement purposes and can be sent to fight outside Canada if the necessary action be taken to send them. They are a potential force for reinforcements as well as for the defence of Canada or for operations on the Pacific.

During the year ended March 31, 1944, the strength of the army in Canada was reduced by nearly 35,000, including some 8,000 troops granted long-term leave in agriculture, mining and industry.

Because the strategic situation in North America changed considerably with the reoccupation of Kiska, it was possible to disband the Seventh and Eighth Divisions and to reorganize the Sixth Division, all of which were included in the operational troops in Canada.

The Seventh and Eighth Divisions were disbanded because it was felt they were no longer needed as operational troops. In the disbandment no physi-

cally fit men were discharged. The divisions as divisions were disbanded, but the men who were in them either went to other units to fill them up or went to the training stream to train and to be fitted for overseas service.

N.R.M.A. men in the disbanded divisions were sent to other units to relieve general service personnel who have enlisted for service anywhere in the world. Some low-category men in the disbanded divisions were discharged from the service in order that they might fill civilian occupations and supply civilian needs. The result was that more men were released for overseas service and that the average standard of physical fitness in the operational units was raised.

The non-operational troops in Canada comprise many different groups and arms of the service. They are troops which serve the various army establishments in Canada, provide the service with respect to ordnance and supplies going overseas and supply the training staffs for the centres which train reinforcements for overseas, guards for prisoners of war, etc. They include engineers, signallers, ordnance, army ser-

vice corps, medical and dental corps, provost corps, veterans' guard, staff clerks. They are required at many places all across Canada, including district headquarters and national defence headquarters.

More than 3,000 are employed at a depot in eastern Canada which is operated for the concentration and shipment of supplies to the Canadian, British and allied armies. There are dental units to service the navy and air force, as well as service corps and postal corps for the air force.

A reduction of about 3,000 troops in these non-operational units has been made despite the fact that certain new units not required before have been provided. These include the training brigade on the east coast which is training reinforcements, and certain other units which have been formed for the purpose of doing civilian rather than military work, such as port companies and wood-cutting detachments. There have been increases in certain units which were serving other governments and the navy and air force.

Thus the army in Canada constitutes a base for the provision of equipment and training of

troops for overseas, as well as for the provision of administrative services for both the United Kingdom and the Mediterranean areas.

Canada releases its physically fit men for operational service, which is the prime objective of the army, by utilizing in their place general service personnel returned from overseas, general service personnel unfit for operational duties, the Canadian Women's Army Corps and N.R. M.A. personnel who cannot be absorbed in operational units.

A year ago slightly more than 60% of the general service personnel in the non-operational units in Canada comprised men who were below category "A" or more than 35 years of age. Now this figure is close to 70%. During the year ended March 31, 1944, probably 15,000 general service personnel were released from non-operational units. Many of these were for overseas service.

Troops in the training stream undergo basic, advanced and special arm training, with a proportion proceeding to the training brigade before going overseas. About 23,000 men are required to carry on the administration

and training for the personnel in this reinforcement stream.

Because the peak of army expansion has been passed and the development of the forces is now on a maintenance rather than on a manning basis, some training centres have been closed, including centres for both officers and other ranks.

Since the summer of 1943, 13 basic training centres have been discontinued, and the capacity of 11 others has been reduced. Some of the closed centres are in use for other purposes, and others are on a standby basis so that the original capacity could be easily utilized if the occasion should arise.

Officers as well who cannot be suitably employed or who have reached the retirement age limit are being released. Thus they are afforded an opportunity to re-establish themselves in civil life before general demobilization begins. In the three months from October to January 26, 1944, 1,077 officers were retired, 212 of them for reasons of age. Of the other 800, many were seniors in point of age.

*The operations of the Canadian Women's Army Corps are described under "Women," page 45.*





## AIR FORCE

*"On the east coast we early saw the advantages for transport of aircraft to Europe and defence purposes of Newfoundland and Labrador, and the liability too, if left undefended. From bases in the Maritimes, Labrador and Newfoundland we gave air coverage to convoys and we hunted the submarine. We have stretched our coverage far beyond our own shores, and in conjunction with our Canadian navy have assumed responsibility for the northwest Atlantic. Our land planes and amphibians and flying boats sweep the north Atlantic to Greenland and beyond. And lastly, farther overseas we have contributed thousands of our men to the global war. We are in Iceland. We are in the Hebrides. We are in Burma. We are in India. We are in Egypt. We are in Italy. We are nightly over Europe. We are attacking and beating Germany in the very heart of Nazi might. This is what Canada is doing in the air war."*

HON. C. G. POWER, *Minister of National Defence for Air.*



THE Royal Canadian Air Force has reached the peak of its expansion period but not anywhere near the peak of its aggression against the enemy. Thousands of Canadian airmen have seen action overseas, but

many more thousands are waiting, trained and eager, to meet the enemy in actual combat. Still more are going through the British Commonwealth Air Training Plan or serving as instructors. Front line strength

will rise higher and higher for months to come despite the heavy casualties which are certain to occur. Thus as the emphasis on training declines, the R.C.A.F. stands on the threshold of its most important work, that of helping defeat the German air force over Europe—the fruition of four years' training and growth.

Originally there were three Canadian squadrons which went overseas as units. Now there are 42 on actual operations. Nearly all their air crew are Canadian, commanding officers are Canadian, ground crew are Canadian, and the entire cost is borne by Canadians. These units include bomber, fighter, reconnaissance, coastal command, night fighter and intruder squadrons. Provision has been made for additional squadrons to make a total of 44 overseas.

There are 10 times as many R.C.A.F. air crew scattered through the Royal Air Force as there are in the 42 R.C.A.F. squadrons. Canada is now and has been for many months the largest and principal producer of air crew for all the British Commonwealth forces. R.C.A.F. graduates make up considerably more than half the total of all

air crew supplied by partners in the commonwealth. Twenty-five per cent of all air crew in European and Mediterranean areas under British tactical command are Canadian men enlisted and trained in Canada. It is expected the proportion will increase to one-third of the total content of British-dominion-allied air crew strength under this command.

Canadians on loan to R.A.F. squadrons have been in every sortie, raid and operation undertaken by the R.A.F. A considerable number of radio mechanics who were enlisted and trained in Canada are also dispersed throughout the R.A.F. They are located all over the world—over southeastern Asia, Africa and the United Kingdom individually or in small detachments. They compose 45% of the strength of the R.A.F. mechanics establishment.

Members of the all-Canadian R.C.A.F. squadrons have been a tremendous hitting power. During 1943 and to mid-February, 1944, their operations were:

Sorties flown . . . . .	38,544
Operational hours flown .	129,461
Tons of bombs dropped .	21,990
Enemy aircraft destroyed	208
Enemy aircraft probably destroyed and damaged	162
Locomotives destroyed . .	150

# AIR FORCE STATISTICS

## PERSONNEL

Strength (including Women's Division)

August 31, 1939.....	4,061	March 31, 1942.....	112,759
April 2, 1940.....	10,598	April 2, 1943.....	170,366
March 31, 1941.....	47,920	March 6, 1944.....	206,702
Commissioned officers.....		about	32,000
Women's Division.....			14,562
Discharges, retirements and resignations.....		more than	42,660
Casualties.....		" "	11,342
Awards.....			1,173
Air Cadets.....			30,000
Personnel to be enlisted during fiscal year ending March 31, 1945 (excluding Women's Division).....			26,000
R.C.A.F. squadrons established overseas.....			42
Total number of R.C.A.F. squadrons to be established overseas..			44

## OPERATIONS

### Overseas

Operational hours flown by R.C.A.F. squadrons during 1943 and to mid-February, 1944.....	129,461
Sorties flown.....	38,544
Tons of bombs dropped.....	21,990

### Western Hemisphere

Operational hours flown during 1943.....	86,000
Sorties flown.....	23,971
Submarine attacks.....	32

### British Commonwealth Air Training Plan

Training miles flown.....	more than 1,750,000,000
Number of training planes.....	" " 11,000

### Overseas mail squadron from December 15, 1943, to February 15, 1944

	Pounds
Mail carried between Canada-United Kingdom and return..	57,920
Between United Kingdom-Mediterranean theatres and return	89,918

## EXPENDITURES

Total estimated, September, 1939, to March 31, 1945

R.C.A.F. overseas operations.....	\$ 910,819,643
Western Hemisphere operations.....	963,053,377
B.C.A.T.P.....	1,635,408,265

**\$3,509,281,285**

Probable expenditures for 1943-44 compared with estimated requirements for 1944-1945:

	1943-44	1944-45	Increase or decrease	Percentage Change
Overseas.....	\$ 405,301,825	\$ 463,157,142	+\$57,855,317	+14.32
Western Hemisphere...	309,900,000	238,905,351	- 70,994,649	-22.9
B.C.A.T.P....	474,200,502	387,937,507	- 86,262,995	-18.14
TOTAL....	\$1,189,402,327	\$1,090,000,000	-\$99,402,327	-26.72

In addition, enemy U-boats, merchant vessels, tugs, barges, military installations, motor vehicles and transports of all kinds were attacked.

During this period fighter squadrons flew 21,965 operational sorties, destroyed 158 enemy aircraft and probably destroyed or damaged 135 others. Intruder and night fighter squadrons operating under the operational control of R.A.F. fighter command carried out 2,056 sorties, destroyed 42 enemy aircraft, damaged 24 and demolished 81 locomotives.

Canadian intruder Mosquitoes which range far and wide over enemy territory by night and occasionally by day to seek out enemy aircraft over their own bases started off 1944 brilliantly. In the 31 days between January 27 and February 27 they destroyed 23 aircraft in this manner. Seven of them were knocked down by four Mosquitoes in eight minutes one afternoon. These included four-engined Heinkel 177's, Focke Wulf Condors and a twin-engined glider tug.

R.C.A.F. Spitfire squadrons, flying as part of a number of all-Canadian wings, continued their task of escorting bombers of all

types to targets in occupied Europe. Many of these escort duties were with bombers attacking the "rocket coast" in the Pas de Calais area. Scores of Canadians flying R.A.F. medium and light bomber squadrons were detailed to attack these objectives.

The R.C.A.F. bomber group, formed on January 1, 1943, has now been converted from twin-engined planes to four-engined Halifaxes and Lancasters, including the new Halifax Mark III. Again and again these squadrons attacked the enemy's vital centres of war industry. More than 40 important manufacturing and commercial centres, seaports, shipbuilding yards and submarine bases in Germany, Italy and occupied France have felt the impact of their heavy explosives and incendiaries. For example, during the first 13 months of the group's existence Berlin was visited 18 times, there were persistently heavy attacks on the Ruhr and Rhineland and also on the enemy submarine base of Lorient. In these and other operations, the R.C.A.F. bomber squadrons flew 11,199 operational sorties, dropping 22,000 tons of bombs, of



which 14,000 were concentrated on Germany and the remainder on targets in Italy and enemy-occupied countries.

In three operations at the beginning of March, 1944, against precision targets in France, R.C.A.F. bombers made up about half the attacking forces. In heavy concentration raids against Germany, the Canadian group carries full weight. Some measure of the R.C.A.F. proportion in these raids can be gained from the fact that when 79 bombers were lost during the great assault on Leipzig in February, 18 were Canadian planes. In the great attack of February 25 on the ball-bearing plants at Scheinfurt 35 allied planes were lost, seven of them Canadian.

The R.C.A.F. bomber group has dropped more tons of bombs in a single night's operation than the heaviest weight ever dropped by the Luftwaffe on London in a single night at the height of the blitz.

Last spring the bomber force in the Mediterranean was reinforced by an R.C.A.F. bomber wing made up of certain squadrons in the R.C.A.F. bomber group. In the new theatre they quickly set up airfields and in

heat and sand established operations which included sorties on 78 of 80 successive nights. Commander-in-Chief Air Chief Marshal Tedder said of this force:

"This wing has done an exceptionally good job of work ever since it arrived and has undoubtedly contributed appreciably to our offensive. The scale of effort, in relation to the size of the force, has probably been higher than has ever been achieved anywhere in the past."

These squadrons have now returned to England to add their weight to existing strengths. Their Wellington bombers have been replaced by new Halifax Mark III's.

R.C.A.F. squadrons operating with coastal command and India command have been on the offensive over the north and north-east Atlantic, the North Sea, the Bay of Biscay and the Indian Ocean. Their duties include searching out and attacking enemy surface vessels, anti-submarine patrol, allied merchant shipping escort, naval escort and fighter and general reconnaissance patrol. These coastal squadrons are equipped with Sunderland and Catalina flying boats, Wellington, Beaufighter and Albacore land planes and in

the course of their operations have flown 25,478 hours.

During 1943 R.C.A.F. aircraft overseas flew more than 20,000,000 miles on operations or more than 57,000 miles every day, not including practice flying. In widely scattered skies—over Germany, occupied France, in the softening up of Sicily, over the beachheads of Anzio and Cassino in Italy and many European coastal waters—members of the Royal Canadian Air Force have acquitted themselves honorably.

Canadians from all parts of the nation played a large role in the successful operation by transport aircraft and the third tactical air force in Burma which placed allied troops some 200 miles beyond the Japanese. Air Minister Power stated that when the German war is over the thoroughly integrated Canadian air force under Canadian command will tackle the Japanese menace by the side of its flying fighting allies.

In Western Hemisphere operations almost as many squadrons were engaged as there were R.C.A.F. squadrons overseas.

With the withdrawal of the Japanese from the Aleutians and the improvement in the U-boat war situation several of these squadrons have been released for service overseas.

Canadian squadrons composed of British Commonwealth Air Training Plan graduates and commanded by air veterans of the Battle of Britain and the Battle of Europe operated under United States command in the Aleutians and helped to eliminate the Japanese from the Pacific approaches. Personnel in these squadrons were more than 2,000 miles from their home base, as far as if they had been serving in the Mediterranean or European theatres.

Squadrons patrolled Pacific sea lanes, and fighters were poised for air attacks. The R.C.A.F. took over the control of all flying, civil as well as military, in the entire Canadian west coast region as well as throughout the busy northwest staging route from Edmonton to Canol and on to Whitehorse and Alaska.

In the unrelenting hunt for submarines and in the protection of troops and supplies on the Atlantic the story has been equally successful. Since the first

1,700 hours of flying time for each U-boat sighted or an average of 230 sorties per sighting. This increasing success was largely due to improved weapons, more modern aircraft and the greater experience of crews.

One anti-submarine patrol squadron has been detached from the east coast and is now operating from a base in Iceland to round out Atlantic coverage. While no enemy submarine was sighted from Canadian coasts in 1943 and no U-boat attacks were made in Canadian waters, the home defences will not be neglected.

[illegible]

*9,000,000 letters were carried by this squadron to and from overseas troops in first six weeks of operation.*

to the United Kingdom and from there to the Mediterranean theatres for the purpose of expediting the exchange of mail with

the troops overseas. The chief difficulty was the tremendous mileage—3,100 miles from Ottawa to the United Kingdom, 2,850 from there to Italy, 1,850 from Italy to Cairo—a total one-way distance of 7,450 miles or approximately 15,000 for a round trip. Six Flying Fortress aircraft were obtained from the United States for this purpose. During the period from its inception in

mid-December, 1943, to February 15, 1944, a total of 147,838 pounds was carried. As more than half was received by troops, the load represents a delivery of 2,250,000 letters, the equivalent of 25 letters to every member of the Canadian expeditionary force in the Mediterranean area.

*Operations of the R.C.A.F. (Women's Division) are described under "Women," page 45.*



## BRITISH COMMONWEALTH AIR TRAINING PLAN

*"The British Commonwealth Air Training Plan has this year reached the zenith of its development, and its effect has been felt around the world. Wherever our allied airmen fly will be found graduates of this plan. From the Antipodes to the bleak wastes of Greenland, from India to Alaska, our Canadian-trained aviators perform their daily tasks as they were so well taught to do by the thousands of men in the instructional, technical and administrative staffs of our training plan."*

HON. C. G. POWER, *Minister of National Defence for Air.*

THE British Commonwealth Air Training Plan was planned in December, 1939, and organized in 1940 with one object in view—to supply as efficiently and speedily as possible a stream of well-trained air crew to obtain and maintain air superiority over enemy sky-fronts. The combined efforts of

the British Commonwealth, the United States and the Soviet Union have achieved this purpose.

Beginning with 4,000 men, Canada has raised an air force of more than 206,000. Coincident with this rapid expansion, the B.C.A.T.P., which is administered by the Royal Cana-



dian Air Force, has trained 114,000 in ground work, as instructors, staff men, mechanics, engineers and in 50 different trades. From the flying schools of the B.C.A.T.P. 86,000 men have emerged to fly allied planes and to fight the enemy wherever the need may be. Of this air crew output 56% is Canadian, a proportion exceeding one-half the total graduates in all British air forces.

The expansion of training has been completed, but the expansion of the forces on the fighting fronts is still continuing. Consequent on a reduction in intake of trainees, there will be a gradual and progressive closing of a certain number of training units and schools, beginning with Royal Air Force schools transferred to Canada. The process will be deliberate and extended over many months, and the reduction of training facilities will be geared to the requisite flow of pupils through the plan. By this modification in the training plan the greatest possible weight of air strength will be brought to bear on the Nazi enemy.

The personnel necessary to fill squadrons, units and formations planned for the front line

are already in the pipeline feeding the air forces of the United Kingdom, the Commonwealth and the allies serving under the strategic direction and tactical command of the R.A.F. At present there is on hand the necessary capital and personnel for immediate replacements.

Thus as long-term war plans entail certain reductions in the number of entrants to air crew training, so those current entrants will not engage the enemy for a comparatively long time. More training flying hours resulting from a higher standard of skill required and progressively increasing opportunities for obtaining experience will tend to dam the flow of graduates to fighting areas into a somewhat slower stream.

This does not imply even a progressive winding-up of the air training plan, but is rather a continuation with a reduced output which will not be noticeable for 18 months. By this process of closing down from the rear, personnel will be automatically massed forward to increase the striking power at the fighting front.

During the last year the war emphasis has shifted to an allied

air offensive, the result of a superiority in men and machines. As the Germans accordingly are forced to the defensive, the ratio of allied losses in the lighter aircraft categories, such as fighters, fighter-bombers and medium bombers has dropped. This is reflected in a change in requirements for the production of a different type of air crew so that an ever increasing proportion is now being diverted into the heavier types of aircraft to smash Hitler's Europe.

Numbers of R.C.A.F. air and ground crew personnel, besides the B.C.A.T.P. graduates, will be available for overseas duties. This will be made possible by the reduction of training capacity in Canada and by the curtailment of Western Hemisphere operations resulting from the more favorable war situation on the North American continent. This concentration of manpower in the United Kingdom will provide, close to the front line, more backing to the squadrons now actively engaged or required for the forthcoming operations.

During 1943 training aircraft were obtained with greater ease than previously. The present

supply of elementary and service training planes is adequate. The air training plan has almost 12,000 planes, more than 5,000 single-engined aircraft and nearly 6,000 twin-engined. Cornells are now used chiefly for elementary training. Harvards and Yales are used for single-engine trainers; Ansons, Cranes, Oxfords, Beechcraft and Lockheeds as twin-engined. Bombing and gunnery schools use Battlès, Bolingbrokes and Lysanders; wireless schools use Forts, Harvards, Yales and the Norseman. The Norseman is also utilized in single-engined transportation. Operational training employs Hurricanes, Cansos, Liberators, Mitchells, Mosquitoes, Beechcraft, Dakotas, Venturas, Baltimores and Swordfish. Of all these the following were made in Canada—Cornells, Ansons; Lysanders, Bolingbrokes, Harvards, Hurricanes, Cansos and Mosquitoes.

Young men have come from far parts of the globe to learn to fly under the B.C.A.T.P., joint enterprise of the Canadian, Australian, New Zealand and United Kingdom governments. Australians, New Zealanders, Poles, Czechs, Norwegians, Belgians,

Free French, West Indians and others, all totalling 38,000, have joined 48,000 Canadians to earn their wings in the free skies of Canada. As navigators—bombing, general and wireless—as pilots, as air bombers and as wireless air gunners they have trained and are training under a plan costing Canada alone more than \$1,635,000,000.

At the peak of the scheme 154 flying schools were in operation. These contained 494 hangars, 98 drill halls and 5,476 other buildings. Runways and parking strips equalled 2,377 paved miles, 20 feet wide. Parade grounds occupied the equivalent of 91 paved miles, 20 feet wide, and paved hangar floors were equal to 177 miles, 20 feet wide.



## WOMEN

**T**HROUGH the women's voluntary services division of the Department of National War Services, many women have found a place where they may serve for the common victory while continuing to care for their

own homes. Each local W.V.S. is a centre which, while it does not aim to carry through projects itself, services existing organizations with carefully selected volunteers.

The conditions of war have

increased the possibilities for anti-social behaviour and lessened controls and standards of conduct among the youth. The participation of young people in the volunteer works of the community has a definite bearing on the improvement of these relationships. To this end W.V.S. has encouraged the formation of junior groups of volunteer workers. Such subjects as transport, drill, map reading, first aid, physical training, magazine collection for the troops, local salvage collection and war savings stamps drives have been enthusiastically responded to.

Numerous high school girls have shared a wartime responsibility by the caring for small children in day nurseries during after-school periods, in evenings and in vacations.

It has been required of the women students of various universities that a certain number of hours be given to war training. Until recently these students were accommodated in training courses such as dietetics, home nursing, telegraphy, etc. The suggestion was made and accepted by several W.V.S. centres in cities having a university that these students be given volunteer

work through W.V.S. which would be accredited to their hours of service.

Accordingly, the girls were interviewed in an attempt to discover their particular skills and interests, and so far as possible were placed in the agency of their choice. Some have undertaken canteen work, magazine exchange duties, play therapy, knitting, selling of war savings stamps and many other vital community services. Social welfare societies such as the Children's Aid have co-operated. In this way a future reserve of voluntary help is being built up while at the same time the girls themselves are learning work and responsibilities which will serve them in later life.

In the organization of wartime day nurseries Canadian women also have risen to the emergency. The operation of government-sponsored nurseries and day care centres has enabled almost 1,500 skilled married women to engage in essential war work. Otherwise they probably would have been unable to leave their children. About 2,100 children are receiving care under the combined plan of nurseries and school centres.



## WOMEN IN THE ARMED FORCES

Enlistments to April, 1944		
Women's Royal Canadian Naval Service .....	more than	4,672
Canadian Women's Army Corps .....	" "	17,006
Royal Canadian Air Force (Women's Division) .....	" "	16,549
Nursing Services .....		3,216
Women doctors in the armed services .....		40
Total .....		41,483

Youngest of the three women's services, the Women's Royal Canadian Naval Service, has grown since its inauguration in June, 1942, and its first training class of August, 1942, to a total enlistment of more than 4,672 by April, 1944.

Canadian Wrens are serving at more than 30 naval bases, including Washington, Newfoundland and the United Kingdom.

This service recently announced the need for a limited number of qualified librarians and assistants to serve in busy Canadian ports and naval establishments. They will serve with the naval library service which maintains library facilities for R.C.N. personnel aship and ashore.

In April 10 Canadian Wrens were the first assigned to duties in New York. On loan to the Royal Navy, they have duties as naval paywriters and supply

assistants. Wrens from the United Kingdom were already stationed there.

The Canadian Women's Army Corps, which was established in August, 1941, and commenced training on September 1, 1941, reached a total enlistment of 17,006 by April, 1944.

A new wide-scale recruiting campaign for C.W.A.C. personnel has been launched in which 5,000 tradeswomen and potential tradeswomen are to be enlisted by June 15, 1944.

In February an initial four-weeks nursing orderly's course for C.W.A.C. personnel was organized at Chorley Park Military Hospital in Toronto. Twenty-five corps members from all parts of Canada enrolled. The object is to produce nursing orderlies to care for C.W.A.C. personnel in military hospitals throughout the Dominion.

The first women's service organized in this war to release men for active duties, the Royal Canadian Air Force (Women's Division) was established July 2, 1941, and became integrated with the R.C.A.F. in February, 1942. It was also the first women's service to send a contingent overseas. By the end of March, 1944, enlistments totalled more than 16,549.

To support the fighting efficiency of the R.C.A.F., nutritional study has been extensively developed during the 4½ years of war. In February, 1942, the R.C.A.F. appointed its first woman dietitian, and in the following years the ranks have been extended to include 110 university trained dietitians to be responsible for the nutritional complement of food served in mess halls across the Dominion. A "W.D." is deputy director of the directorate of food administration. Under her direction, messing officers have gone to six R.C.A.F. commands. Messing officers of the W.D.'s are now also serving overseas. They are studying food conditions in the United Kingdom with a view to taking over the nutritional supervision of Canada's

fighting air force. Canadian airmen serving with the Canadian bomber group overseas soon will have their meals prepared Canadian-style by highly qualified Canadian dietitians.

Seven women officers who were trained as social service workers in civilian life are putting their knowledge into practice as auxiliary officers. Problems involving adjustment of personnel to service life, those involving work with dependents of servicemen and women, and individual difficulties of a personal nature come to them for attention. Legal, business and marital advice is sought and obtained.

By April 3, 216 Canadian women were enlisted in nursing services uniforms. There were 2,617 in the Royal Canadian Army Medical Corps, 238 in the Royal Canadian Navy nursing service and 361 in the Royal Canadian Air Force. These include nursing sisters, physiotherapy aides, occupational therapists, dietitians and home sisters.

There are 40 doctors in the armed forces, four in the navy, 25 in the army and 11 in the air force.



## MUNITIONS

THE value of war production in Canada, excluding capital expenditures, construction projects and orders placed abroad, showed an increase of more than 150% in 1942 over 1941, and an increase of about 35% in 1943 over 1942. For 1944 a further increase of about 3% over 1943 is expected. If capital expenditures, construction projects and orders placed abroad were included, the estimate of expenditures for 1944 shows a decrease of approximately 7% compared with 1943. The rate of production in terms of dollar value reached its peak in the first quarter of 1944. The fourth quarter of 1943 saw the highest

level of employment in the history of Canada.

Certain production targets had been attained by June, 1943, and since then more of these objectives have been reached. While this did not necessarily mean any slackening of the over-all effort, it did involve considerable program revision, with some items reduced and others expanded. The changing strategy of the war makes obsolete certain types of equipment and establishes the need for entirely new types.

**Aircraft.**—The value of planes produced in 1943 was 50% higher than in 1942 because of the predominance of

larger types of more intricate design. The aircraft production program will continue to expand with a transfer of effort from

trainer to combat aircraft. Of the 11,390 planes produced during the war, more than 2,000 have been first-line service craft.

Production in March,  
April, May, 1943. . . . . 971 total, 324 average monthly.

Production in December,  
1943, January, Feb-  
ruary, 1944. . . . . 1,309 total, 436 average.

(Peak reached in January with output of 455.)

This was an increase of one-third in units of production, but in poundage production the increase was 50%.

Some 20 different types of aircraft have been produced since the beginning of the war, and despite many program changes the general curve of production has been upward each year. The number and weight without engines of aircraft produced in Canada have been:

	Number of aircraft	Poundage
1940. . . . .	846	1,628,118
1941. . . . .	1,697	6,358,442
1942. . . . .	3,811	17,578,309
1943. . . . .	4,133	20,088,864
1944 (pro- jected..	4,312	21,430,000

The shift in program from trainer to service types tends to reduce the output in terms of numbers, since one service type may involve 50 times the man-hours employed in the produc-

tion of a primary trainer. The airframes are almost completely Canadian made, and virtually all the instruments are now made in Canada. Thus little is imported except the engines.

Including the overhaul plants, the primary contractors and the sub-contractors, there are 122,000 persons employed in aircraft manufacture, of whom 39,000 are women. The overhaul of aircraft in operation in Canada has become a major industry, for some 200 planes and about 1,000 engines are being overhauled each month.

One of the main objectives of the aircraft production program from its beginning was to supply all the trainer aircraft needed for the operation of the British Commonwealth Air Training Plan. It has succeeded. Because of the falling off in requirements for trainer aircraft in recent



# MUNITIONS

Total contracts awarded.....	approximately \$9,450,000,000
Estimated total value of war production, including value of deliveries on orders placed abroad, war construction and capital expenditures:	
Fiscal year 1943-44.....	\$3,435,000,000
Fiscal year 1942-43.....	\$2,900,000,000
Purchases of personal equipment, foodstuffs, fuel, hardware and miscellaneous stores to December 31, 1943.....	\$2,988,000,000
Government-financed expansion of industrial capacity:	
Commitments.....	\$ 856,983,614
Expenditures to December 31, 1943...	\$ 714,258,389
Estimated number of persons engaged in direct and indirect war employment (including about 800,000 actually engaged in manufacturing war equipment).....	more than 1,000,000

## PRODUCTION

	1942	1943	Total to March 1, 1944
Aircraft.....	3,811	4,133	11,390
Armored fighting vehicles....	12,500	15,500	34,000
Mechanical transport.....	192,000	175,000	593,000
Army and Navy artillery gun barrels, carriages and mountings.....	31,000	45,000	84,000
Machine guns, rifles and other small arms.....	325,000	580,000	1,000,000
Gun ammunition (rounds)...	28,000,000	30,000,000	62,000,000
Small arms ammunition (rounds).....	1,200,000,000	1,500,000,000	3,300,000,000
Chemicals and explosives (pounds).....	860,000,000	1,000,000,000	2,300,000,000
Cargo vessels			
Number.....	81	150	249
Deadweight tons.....	838,000	1,478,000	2,600,000
Naval vessels.....	117	100	336
Small naval craft (4,300 orders placed).....			3,600
Instruments and communications equipment.....	\$84,000,000	\$180,000,000	\$320,000,000
Defence and other construction projects, including housing.....	\$219,000,000	\$194,000,000	\$675,000,000

months, however, considerably produced in 1944. Three trainer  
fewer trainer planes are to be craft now are being produced:

	1943 Monthly Production Rate	Total Production to March 1, 1944	1944 Monthly Production Rate
Cornell, primary trainer...	125	1,579	50
Harvard, secondary trainer	100	1,849	100
Anson, twin-engined trainer	70	2,413*	35

\*Of this number 560 were of a new type equipped with moulded veneer fuselage and a more powerful engine.

Canada is also producing the  
Norseman, which was used form-  
erly as a service craft and is now  
used for military transport.

Production of service craft,  
now confined to four world-  
famous types, each of which is  
unsurpassed in its class:

	Peak Monthly Production	Total Output	Expected Monthly Production
Mosquito.....	33 (February, 1944)	183	52 (June, 1944)
Lancaster.....	9 (February, 1944)	39	17 (May, 1944)
			30 (December, 1944)
PBY Catalina flying boat...	37 (December, 1943)	273	50
Curtiss dive bomber.....	20 (current)		70 (midsummer)
			130 (December, 1944)

**Military Vehicles.**—The  
production of self-propelled  
mounts and other armored fight-  
ing vehicles will continue at a  
high rate in 1944. While the  
production of mechanical trans-  
port dropped in 1943, heavier  
and more costly equipment was  
manufactured in 1943 than in  
1942. This continues to be a  
major program, and although  
fewer units will be produced in  
1944 than in 1943, they will be  
of a heavier type. Emphasis is

shifting from the two-wheel to  
the four-wheel drive chassis,  
which requires more man-hours  
per unit. The current rate of  
wheeled vehicle production is  
13,000 monthly.

The automotive industry and  
component manufacturers are  
devoting a large part of their  
capacity to the production of  
spare parts. During 1943 spare  
parts production averaged in  
cost \$7,500,000 a month. During  
1944 a figure of \$11,500,000 a

month is expected to be reached.

The production of armored cars and reconnaissance cars was discontinued in 1943. The production of scout cars also stopped for a brief time, but will begin again after the introduction of new designs. The production of some hundreds of armored trucks in 1944 is expected, and this year's program will include as well the manufacture of workshop lorries at the rate of 200 a month.

Canada's orders for tanks were completed in 1943. The capacity which was built up for the manufacture of tanks is being used to produce self-propelled gun-mounts, tank turrets and railway equipment. The production of self-propelled gun-mounts, which operate on tank chassis, amounted to 1,928 in 1943. The current rate of production of this equipment is 150 a month.

Canada has large orders under way for locomotives and other railway equipment for the combat areas. Locomotives for shipment overseas are being produced at the rate of 24 a month. Railway equipment manufacturers are working to full capacity on the production of freight cars and other types of rolling

stock for home and overseas use.

The universal carrier will continue to be produced in 1944 at a rate of 900 a month. More than 24,000 universal carriers have been delivered.

**Communications.**—The production of instruments and communications equipment continues to be an expanding program. The value of production in communications has been as follows:

1940.....	\$ 1,000,000
1942.....	60,000,000
1943.....	136,000,000

The radio and communications industry is now operating at a level some 18 times greater than in 1939. There are orders on hand to the value of \$400,000,000, and peak production is not expected until the second quarter of 1944. There are approximately 4,500 different items in current production by some 50 prime contractors and several hundred sub-contractors.

Some 20 major types of radar equipment have been developed for a variety of applications.

**Guns.**—There will be a further cut in the production of army guns this year in addition to the drastic reductions in

1943, and there will be a slight increase in the production of naval guns. The downward trend in gun production has been offset to a degree by the programming of certain new types of guns and new mountings. Where possible plant capacity is being converted to other uses, but in many cases it is felt necessary to maintain plants and equipment in working condition for stand-by purposes.

The current army gun production program includes five types of barrels and several types of mountings, together with detector and fuse setting equipment required for the 3.7-inch anti-aircraft gun. Some of the manufacturing capacity which otherwise would have been idle is working on orders for China. Canada is now shipping to China two types of anti-aircraft guns as well as six-pounder guns.

The self-propelled (wheeled) Bofors 40-millimeter gun is being made in Canada in an improved design for which Canadian engineers have been responsible. Scores of the new gun, which came off the secret list on March 31, have already been built in Canada for the United Kingdom, and a steady output is going to the Canadian Army.

The naval gun program includes three types of barrels and eight types of mountings, with another type of gun and mounting to come into production soon.

**Small Arms**—Production of small arms in 1944 will be slightly greater than in 1943, but this is weighted by the production of several new stores which can be produced at a higher rate. In 1943 the production of four types of small arms was discontinued—the Boys anti-tank rifle, two types of machine guns and the three-inch mortar. The nine-millimeter pistol, the 20-millimeter universal mounting and the Polsten 20-millimeter automatic gun have just come into production, and production of a modified version of the Bren gun has begun. Total output of Bren guns is more than 155,000.

Rifle production from the plant of Small Arms Limited, a crown company, was at a rate of 35,000 a month in 1943, for a total production of 530,000 to the end of 1943. The current rate is 25,000 a month. The reduction results from lower requirements.

Sten gun production by Small Arms Limited, which reached a



peak of 8,500 a month in 1943, will continue in production at 5,000 a month during 1944. Reduced output here also results from smaller requirements.

There will be some increase in the production of two-inch mortars from 400 a month in 1943 to 600 a month in 1944. The production of bomb throwers will continue at a rate of 3,000 a month.

In general there will not be any great shrinkage in the small arms program during the first half of 1944, but there may be considerable curtailment during the latter part of the year, when many contracts run out. Nevertheless, the small arms orders now on hand will mean a production in 1944 slightly in excess of that of 1943.

**Ammunition.** — Production of gun ammunition in 1944 will carry on at approximately the same rate as in 1943. In addition to the 30,000,000 rounds turned out last year, 40,000,000 cartridge cases and many millions of fuses and other components were produced. A substantial proportion of these components is filled in Canadian shell-filling plants before being shipped abroad. In 1944 some

33 types will be filled, including bombs and grenades. Among them is the projectile for the new Piat, an anti-tank weapon; an anti-aircraft shell; two new grenades and anti-submarine ammunition.

There are more than 130 plants now engaged in manufacturing 154 varieties of shell or other ammunition components. This program will be curtailed somewhat, with operation during the balance of 1944 at approximately 75% of peak capacity. Curtailment in the ammunition program will also result in a decline in the output of fuses, primers, gaines and cartridge cases.

**Small Arms Ammunition.** — This production likewise will be reduced somewhat in 1944. During the last half of 1943 it totalled 775,000,000 rounds, ranging in calibre from .22-inch to one-inch, and the output included more than 30 different types. In the summer of 1943 the programs were revised, with a shift to heavy calibre types. The current production rate is 118,000,000 rounds a month. The new program is scheduled to reach a rate of 122,000,000 rounds a month.

## Chemicals and Explosives.

—This program also will be reduced, and already one major explosives plant has been closed down. Peak production was reached during 1943. Curtailments in the ammunition program will require about a 20% reduction in the output of explosives. The only explosive for which the demand has increased is RDX. In line with declining requirements, rifle cordite production has been discontinued at two plants. Production of TNT and other explosives in the plant at Nobel, Ontario, has been discontinued.

The chemicals and explosives program is tied in closely with the shell-filling program. The whole operation involves about 50 chemical, explosive and shell-filling projects.

Canadian chemists have discovered the most effective method

of manufacturing RDX, the new super-explosive, and have devised improved and important changes in the manufacture of TNT. Canadian scientists have developed a process for large-scale manufacture of fuse powders. Hitherto this had been considered more of a craft than a manufacturing process.

**Ships.**—There will be a slight reduction in the cargo ship program during 1944. There will be some revisions in the naval ship program, with reductions of certain types and the production of new types. Actual deliveries of escort vessels and other types of naval craft will be higher in 1944 than in 1943. Deliveries of small craft will continue this year at about the same level as in 1943.

Past and projected ship construction:

	Delivered to end of February, 1944	Scheduled for 1944
Frigates.....	28	44
Single screw corvettes....	104	18
Steel minesweepers.....	92	29
Wooden minesweepers....	34	45
Fairmile patrol boats....	78	11
Landing craft.....	925	(higher rate than 1943)
Tugs (in 1943).....	45	..
Auxiliary tankers (in 1943)	2	..
10,000-ton cargo vessels...	234	102
4,700-ton cargo vessels....	15	18

In addition to the naval ships delivered, 75 have been launched and are now being fitted out. Three types of landing craft have been delivered. The naval yards have constructed a wide variety of special purpose vessels.

Late in 1943 came word of reduced requirements for certain types of escort vessels. Thus the 1944 program, although considerably less in volume than originally planned, will still represent in dollar cost Canada's highest actual delivery of escort vessels. Deliveries of landing craft, small craft and miscellaneous vessels will be at a slightly higher level in 1944.

Some of the shipbuilding capacity that has been released through reductions in orders for escort vessels will be taken up with orders for a new type landing vessel. Contracts also have been placed for six 3,600-ton oil tankers in two of the naval yards. Ten shipyards and three outfitting yards are engaged on the naval program. Five small yards are building other steel vessels such as tugs, lighters and auxiliary oil tankers, and 62 smaller yards are engaged on the small boat program.

Employment in the yards and in allied industries working on

the naval shipbuilding program is about 50,000 persons.

Boilers have been installed in the first Canadian-built destroyer, and the turbine units will be installed this summer. A second destroyer will be launched early this spring; the keel of a third has been laid, and a fourth will be laid shortly.

Seven shipyards are engaged on the 10,000-ton cargo ship program, and three smaller yards are producing 4,700-ton ships. Orders on hand for the 4,700-ton ship will carry over well into 1945.

In addition to the construction of cargo vessels, certain west coast yards are engaged on alterations to aircraft carriers for the British Admiralty.

A large part of Canada's shipbuilding capacity has been devoted exclusively to ship repairs, and \$10,000,000 has been expended in the expansion of ship repair facilities. The use of these for the repairing and outfitting of naval vessels has increased tremendously. In addition, the major part of the servicing of the merchant fleet has been done on the western side of the Atlantic. In four years 25,000 naval and merchant vessels were repaired in Canada.

# MUTUAL AID

*"Canada has received no lend-lease aid from the United States. She has paid cash for the supplies obtained in this country.*

*"It may be noted, however, that Canada has already made a billion dollars worth of aid available without payment to the United Kingdom and is now engaged in making available another billion dollars worth of aid to the United Kingdom, Russia, China and the other United Nations on a mutual aid programme similar to our lend-lease programme."*

PRESIDENT ROOSEVELT of the United States  
on November 11, 1943.



CANADA'S Mutual Aid Act is based on a realization that the provision of materials to the common cause is no less vital and no less a duty than the provision of fighting men.

Since the beginning of the war Canada has been extending considerable assistance to its allies. In the first three years the flow of Canadian war supplies to the United Nations was assured by providing the United Kingdom with the Canadian dollars necessary to pay for these supplies. Countries in the British Commonwealth and also the Soviet Union have, through the United Kingdom, received substantial amounts of Canadian war supplies in this way.

Several methods of extending financial aid were used. The most important were:

The buying back or "repatriation" of British-held Canadian securities, amounting to about \$800,000,000, and the consolidation of the major part of accumulated sterling balances in London amounting to \$700,000,000, into an interest-free loan for the duration of the war.

A contribution of \$1,000,000,000 placed to the credit of the United Kingdom for the purchase of Canadian war supplies.

The assumption of the ownership of United Kingdom interests in Canadian war plants amounting to about \$200,000,000.

Instead of acting through the United Kingdom, Canada wished to negotiate directly with each country receiving its supplies. Thus the Mutual Aid Act was passed in May, 1943. Its preamble states in part:

"It is essential to the defence and security of Canada and to the cause of world freedom that Canada should make the utmost contribution to the victory of the United Nations.

"It is necessary that the products of Canadian war industry be made



available not only for use by Canadian forces, but also to other United Nations, in accordance with strategic needs, in such manner as to contribute most effectively to the winning of the war.

"It is expedient that the conditions upon which Canadian war supplies are made available to other United Nations should not be such as to burden post-war commerce, or lead to the imposition of trade restrictions, or otherwise prejudice a just and enduring peace."

These were the principles on which the Mutual Aid Act was founded. It provided for the distribution of Canadian war supplies, including not only war equipment but raw materials and foodstuffs, to the United Nations to the value of \$1,000,000,000 on the basis of strategic need and in excess of what could be paid for.

Mutual aid agreements now have been signed setting forth the general terms and conditions under which effect is being given to Canada's policy. They cover the supplies which have been shipped to the countries concerned during the months before the agreements were signed and also the supplies that will be provided in the future. Agreements were signed with the United Kingdom and the Soviet Union on February 11, 1944, with Australia on March 9, and

with China on March 22. Others are being negotiated.

The preamble of the agreements sets forth their purposes in language similar to that used in the preamble of the Mutual Aid Act.

In the words of Prime Minister King in the House of Commons on March 16, 1944:

"They are designed to make clear that the recipient governments accept these purposes and will co-operate in their fulfilment."

The agreements contain a pledge of reciprocal aid to Canada and a mutual undertaking to pursue international economic policies designed to implement the economic objectives defined in the Atlantic Charter and accepted by all the United Nations.

Prime Minister King said that the policies reflected in the "far-seeing philosophy" of the Mutual Aid Act

"will make it possible for mutual aid to prove its post-war value in enabling trade to thrive without the barriers which huge war debts would have imposed. It has been our purpose in instituting the mutual aid procedure to leave at the end of the war no indeterminate obligations arising from the provision of war supplies by Canada which would have to be settled by subsequent negotiations."

Canada will not require the recipient government to redeliver to the government of

Canada any mutual aid supplies with these three exceptions:

1. Title to cargo ships remains with the government of Canada.

2. Supplies which at the end of hostilities in any major theatre have not yet reached their destination may revert to Canadian ownership.

3. In certain circumstances the Canadian government may request the transfer of specified types of supplies still serviceable at the end of the war to other users, for relief purposes or for Canadian forces still serving overseas, and may also ask for the return to Canada of serviceable aircraft and automotive equipment if required for use at home.

The underlying principles of mutual aid and United States lend-lease are the same: That no financial impediment should prevent allies from giving the maximum assistance to one another and that United Nations war resources should be used in the most effective way possible.

While the Lend-Lease Act was adopted when the United States was neutral, the Mutual Aid Act was passed when Canada had been at war for more than  $3\frac{1}{2}$  years and had already extended financial aid in excess of \$2,700,000,000 to the United Kingdom and its allies.

The agreements with the United Kingdom, Australia and China are virtually identical, and the Russian agreement is basically the same, with minor

exceptions; for example, it takes into consideration the annual protocols concluded with the Soviet Union for the provision of supplies.

During the 11 months of the 1943-44 fiscal year up to February 29, 1944, Canada spent \$672,769,228 on mutual aid. The proposed appropriation for the fiscal year ending March 31, 1945, is \$800,000,000, which will include Canada's contribution to the United Nations Relief and Rehabilitation Administration.

The Canadian delegation took an important part in the deliberations of the first meeting of the council of this Administration at Atlantic City, New Jersey, in November, 1943. One of the Canadian delegates, L. B. Pearson, minister-counsellor at the Canadian Embassy in Washington, was elected chairman of the important committee on supplies which will advise the council, the central committee and the director-general of the administration regarding the provision, financing and transport of supplies.

A sub-committee of the committee on supplies has authority to decide whether a recipient country is able to pay for the relief supplies it receives.

The financial plan for meeting the costs of the relief supplies is based on contributions by those United Nations not occupied by the Axis equal to 1% of their national incomes. Canada's proportion on this basis has been estimated in the press to amount to between \$80,000,000 and \$90,000,000. At least 10% of this contribution is to be in the form of currency that can be expended outside the contributing country, with the balance in

the form of a credit in local currency, available for the purchase of the contributing country's goods.

Canada, as one of the chief food producing countries in the world, will probably be called on to supply a substantial part of the food relief needs.

The next meeting of the administration's council, which must meet at least twice a year, will be held in Montreal in June.



## PAPER SALVAGE

### 1. Why is it needed?

- a. 700,000 different manufactured items, from parts of military tanks to pins and needles, are shipped overseas to the fighting fronts in paper.
- b. 2,800 different items made of paper are used by the navy, army and air force.
- c. Blood plasma, emergency rations, dehydrated foods, gas masks, medical kits, ack-ack shells, airplane propellers, bombs, grenades, etc., are shipped in paper containers.
- d. Cartons to be thrown overboard in landing operations.
- e. Paper parachutes strong enough to convey food and supplies.

### 2. How can paper be salvaged?

- a. By releasing large stores held in old office files.
- b. By saving wrappings, newsprint, cardboard cartons, magazines, cardboard.

### 3. How can it be disposed of?

By donating to local salvage committees and giving them maximum co-operation or through other recognized collection channels.



# CONTROLS



**T**HE chief duties of the War-time Prices and Trade Board since its inception on September 3, 1939, have been to maintain an adequate flow of essential civilian supplies and orderly distribution while holding down consumer prices.

The strongest weapon against the wartime threat of inflation was the "price ceiling policy." This ceiling was arrived at by taking the highest level of retail prices during the four-week period of September 15 to October 11, 1941. This control has been supplemented by the rationing of certain commodities, by reduction of import duties and taxes, and by payment of governmental subsidies to certain producers to compensate them for increased production costs.

**Success of Controls.**—That these measures have been effective is indicated by a survey of two comparisons between cost-of-living increases—first, in this war and World War I, and, secondly, in the period in this

war since controls were established and the period before.

In World War I unchecked prices imposed considerable hardships on Canadians. By the end of the war the cost of living had risen 57.6% above the pre-war level. In this war to December, 1943, it showed a total rise of 18.4%. In this ascent the dominating influence of food prices is apparent. Food accounted for 10.3 points or 56% of the jump.

From the beginning of this war to the basic period for the price ceiling, October, 1941, the cost of living rose 14.6 points. Since then to March, 1944, it rose to 18.1 points, a further advance in more than two years of only 3.5 points.

**Price Control.**—In certain important classes of commodities it has proven difficult to base price control on the individual ceiling price of each seller. In these cases there has been some departure from the basic period formula, and maximum prices have been fixed with



allowances for regional differences and specific retail prices, although the basic period principle is still the criterion. Lumber, newsprint and certain wood products are examples of this.

Fresh fruits and vegetables are examples of another problem. The extreme variability of supply and costs made them unusually difficult to bring under effective control, so they were originally exempted from the ceiling. Sharp price rises, however, brought more or less gradual imposition of ceiling control despite the administrative difficulties.

The third group of problems—pricing goods not on the market during the basic period—has assumed growing importance in view of the large number of substitute goods, entirely new goods being produced, and the reappearance of goods not on the market during the basic period.

In meeting higher costs, the principle of “sharing the squeeze”—dividing the increased costs among producer, manufacturer and distributor—is still operative, but in an increasing num-

ber of cases the saturation point has been approached. Programs of simplification have also aided cost reductions, that is, the prohibition of certain manufacturing and distribution “frills” along with reduction of several models and styles. Simplification has been preferred to standardization as the former does not necessitate the machine change-over or marketing disruption required in the latter case.

When all practicable measures of economy have been exploited to the full, various other methods of keeping prices down still remain. If the continued production or importation of the goods is considered necessary, help may be given

- a. by subsidy
- b. by remission of duties or by government bulk purchasing
- c. by permission of a price increase.

The Commodity Prices Stabilization Corporation, which was established by the PRICES BOARD, operates much of the bulk purchasing program and the subsidy program, except for subsidies paid to agricultural producers.

Subsidy payments up to December 31, 1943, have been as follows:

By Commodity Prices Stabilization Corporation since December 1, 1941:

Subsidies on imported goods . . . . .	\$ 53,568,887
Subsidies or reimbursements on domestic products . . . . .	61,809,348
	<hr/>
	\$115,378,235

The widespread use of substitute materials and the loss of skilled labor, coupled with the resultant increase in production costs, combine to raise problems of quality deterioration. It is important to maintain so far as possible the price-quality relationships of the basic period. For this purpose a standard section in the Prices Board's prices division has been set up. The duties of this section are to recommend standards, specifications and labelling regulations, to investigate consumer complaints and to conduct systematic inspection of manufacturers, wholesalers and retailers to uncover unauthorized variations in price-quality relationships. Without this control the consumer would experience a rise in living costs without any increase in prices taking place, for he would be forced to buy a more expensive grade or less satisfactory type of article. The services of this section are also important in setting maximum prices for new and substitute products.

**Supplies.**—The Prices Board also functions in the matter of obtaining essential imports, in the allocating of supplies between military and civilian needs and finally in the distribution of supplies among manufacturers.

In the first sphere, necessary imports have to be obtained from abroad. This involves presentation of Canada's requirements to the combined boards functioning in Washington, which allocate United Nations supplies, and to those national control bodies which regulate the production and distribution of materials in the United States and the United Kingdom. The Prices Board prepares for presentation to these boards data on the production and requirements of the civilian sector of Canadian economy as well as on some direct war requirements.

Bulk purchasing is sometimes necessary. Such purchases are generally made on a government to government basis, but so far as possible are distributed through the ordinary channels of trade,

with importers acting as agents for the Commodity Prices Stabilization Corporation. The latter assumes all risks involved in the transaction and is responsible for obtaining the necessary shipping space. A single government agency such as this company is

in a much better position to obtain necessary shipping than several private importers would be.

Net trading losses on commodity operations from December 1, 1941, to December 31, 1943, were:

Commodity Prices Stabilization Corporation	
Limited.....	\$10,760,378
Wartime Food Corporation.....	861,340
Canadian Wool Board Limited.....	194,636
Wartime Salvage Limited.....	426,112
<hr/>	
TOTAL.....	\$12,242,466

Secondly, Canadian materials, whether imported or domestically produced, and labor must be allocated as between war and civilian requirements. For this purpose certain interdepartmental committees have been set up, and close co-operation is maintained with the Department of Munitions and Supplies, which handles war material requirements, and with National Selective Service, which allocates manpower to the armed services, agriculture and essential industry.

Lastly, the administrators of the Prices Board are responsible for allocating materials in short supply to the different manufacturers. Most essential users are considered first, and un-

necessary use of materials and labor is curtailed by conservation programs and production directives.

The method of allocation varies from industry to industry. In some cases the arrangements are entirely informal; in others supplies of raw materials can be obtained only under permit. In the case of newsprint, the administrator sets a quota for each user and issues a permit for the appropriate amount. When purchasing scarce metals manufacturers must first obtain the approval of the administrator concerned, and the matter is then submitted to the appropriate controller in the Department of Munitions and Supply for release of the metal. In addi-

tion, maximum quotas have been set up gauged on a specified base period for the amount of metals which may be used in the production of various consumer goods. In general, a great deal of administrators' activities is concerned with assuring an adequate flow of raw materials and supplies.

After every feasible effort has been made to increase supply, it is still inevitable that there will be a shortage in many lines of consumer goods due to the large conversion of productive facilities to war needs and to the increased civilian demand resulting from increased purchasing power.

**Distribution.**—To ensure an equitable distribution under wartime conditions organized supervision is necessary. Thus care must be taken to see that

- (a) highly essential needs are given priority;
- (b) supplies are not consumed at or near the point of production to the detriment of other areas;
- (c) discrimination between large and small distributors does not develop within the trade;
- (d) consumers are provided with a fair share of essential goods with the least shopping inconvenience.

The policy of equitable dis-

tribution throughout the trades is often the most effective method, but when necessary it may be supplemented by consumer rationing. The basis of the policy is that manufacturers and wholesalers, when unable to meet the full requirements of retailers, are required to allocate their available supply to their customers in proportion to their sales to the same customers in the year 1941. This year was chosen because it represented a fair level of business activity throughout the country. Informal adjustments of quotas are fundamentally necessary and the success of the policy has been largely due to the fact that it operates with a minimum disruption to normal distribution practices. Moreover, the control is self-liquidating as it becomes non-operative as soon as the supply of any item exceeds the demand.

Many problems arise in controlling distribution to retailers. For instance, if it can be demonstrated that 1941 was a "freak" buying year, because, for example, of a heavy carryover of goods from 1940, the quota will be adjusted. Adjustments may also be made when there has been a substantial increase in civilian



population in a certain area. Again, a supplier going into war work or closing down will introduce another factor disturbing the equilibrium. Here retailers previously supplied by him will be assigned a reasonable allocation through another supplier. The same procedure is followed where retailers close down.

In the case of new businesses opening, the quotas assigned are determined by whether consumers in that district are already adequately served by existing retail outlets. These and other problems arising out of distribution are usually local in character. For this reason complaints are initially directed to the nearest regional office of the PRICES BOARD.

**Rationing.**—When supplies of essential consumer goods fall very much below demand the policy of equitable distribution must be supplemented by more specific controls. If the commodity is one which is generally used in approximately equal quantities by all consumers, the problem is to limit total demand and to ensure that all consumers have an equal chance to obtain a share of the available supplies. In such circumstances coupon

rationing provides the most effective control—but the desirability of rationing must be weighed against the administrative burden it imposes on the government and the distributive trades, and in some cases the burden might be excessive.

Again there are cases in which an equal per capita ration would not ensure that the needs of certain essential users could be adequately met. An example of this is canned vegetables. Since large numbers of Canadians use no canned vegetables or very small quantities, the average consumption is normally low, and an equal per capita ration would mean an inadequate ration for those who customarily use canned vegetables as a regular part of their diet.

In some areas fresh vegetables are not available during much of the year, so canned products are a necessity. In others they are not. To treat all regions equitably any plan for rationing canned vegetables should include fresh and root vegetables, which, on account of their perishability and the large number of suppliers, presents immense administrative problems.

The sale of canned vegetables is controlled by the policy of

equitable distribution supplemented by monthly sales quotas for retailers and special arrangements for users whose needs entitle them to a priority. In order to conserve supplies during the season when fresh products were on the market, sales of canned vegetables and juices were frozen from July to November, 1943.

Consumer rationing has been instituted in Canada for certain vital commodities. Six hundred volunteer local ration boards have assumed much of the load of local organization and distribution of ration books. Two types of consumer rationing are in use—permit and coupon rationing.

Permit rationing controls distribution of articles which are required only by certain groups and purchased at irregular intervals. This is applied to farm machinery, electric stoves, typewriters and office machinery, telephone services, railroad watches, small arms ammunition and tires.

Coupon rationing of sugar, butter, tea and coffee was continuing at April 1, as was that of preserves and evaporated milk (in certain areas) which were not rationed as early as the other items. Gasoline is also rationed.

For the month of March the butter ration was reduced because of decreased winter production.

Meat rationing which became effective May 27, 1943, allowing about two pounds, carcass weight, of meat a week, was temporarily suspended on February 29, 1944. Record quantities of meat were moved overseas in the two months preceding this suspension, and shipping capacity reached its limit temporarily. Supplies which cannot be moved into export channels are being released for domestic consumption through this problem suspension of rationing in order that the meat will not spoil.

The production of foods has increased greatly, but total demand from allied nations, the armed forces and civilian population has increased by an even greater amount. Despite rationing and certain shortages, civilian consumption of principal foods is at a higher level than in pre-war years.

Following is how the 1943 consumption of some of these foods compared with the average for 1935-39:

Total meat.....	+12%
Beef.....	+29%

Milk products (excluding butter).....	+18%
Eggs.....	+24%
Butter.....	-4%
Sugar.....	-20%

In terms of nutrients the civilian diet in Canada shows a considerable improvement over the pre-war years.

### **Machinery and Supplies.—**

The need for increasing agricultural production to the utmost and the scarcity of farm labor have greatly enhanced the importance of farm machinery, feeds and other supplies. Shortages of raw materials have made serious inroads into this field, however—metal for implements; chemical and mineral products for feed, fertilizers and pesticides; sisal and hemp for binder twine and rope. Gasoline, tires and trucks are also in short supply.

New farm machinery has been rationed since October, 1942. The production quota was raised in July, 1943, to approximately 77% of the 1940-1941 output. Available supplies of high protein and mineral feeds have had to be carefully distributed. Mineral content feeds have been regulated, and protein sources have been allocated on the 1941 pattern. The shortage of feeds

has necessitated various subsidy arrangements and bulk purchasing activities. Cotton seed, soya bean and copra cake meal have been introduced, and fish meal plants on the coast have been subsidized.

Fertilizers are distributed to various areas and crops according to their relative importance to the war food program. Manufacturers of fertilizers were zoned to supply the territory nearest their plants. Binder twine was handicapped by the diversion of the African sisal allotment to essential war uses. Mexican fibre and cotton yarn filler were tried, but jute will be substituted for 1944.

**Coal.**—Coal requirements for industry, transportation and domestic use continued at a high level during 1943, while the problems of both supply and cost were accentuated by labor difficulties in Canada and the United States. Various problems of supply and labor in different areas brought special controls in consumer coals and wood fuels. The Commodity Prices Stabilization Corporation has continued to pay subsidy on petroleum imported by tanker to eastern Canada although the

rate has been lowered as a result of decreasing submarine risks. A wage increase granted to miners in British Columbia, Alberta, Saskatchewan and Nova Scotia necessitated an increase in coal prices in those areas.

**Metals.** — The war has brought with it great pressure on the metal supplies of the United Nations, and during 1943 the PRICES BOARD took several steps in connection with the provision of civilian metal goods. Metal shortages in Canada partly reflect difficulty in obtaining metals from abroad and in replacing pre-war supplies, such as tin, lost as a result of enemy action. In other lines Canada produces more than is required for its own purposes, but in the case of such metals as nickel, aluminum and zinc any surplus that can be spared is required by its allies.

Earlier stringent measures of restriction against non-war uses, combined with shifts in the production of war weapons, have recently eased the supply situation in certain metals. For the first time since war began some relaxation on the production of

metal articles for civilian use has become possible.

**Housing.** — Wartime restrictions on new housing construction and shifts in population caused by the war have made serious congestion in certain areas. The board has been concerned not only with control of rents and evictions, but has taken active steps to make the maximum use of available housing accommodation in deficiency areas. Here housing registries have been set up which are operated by the board in co-operation with other local organizations.

**Consumer Credit.** — Regulations governing consumer credit were introduced in October, 1941, and were later amended and extended. In general, they require a one-third cash down payment on credit purchases of almost all consumer goods and payment of the balance in from six to 15 months. Charge accounts must be paid within one month of the end of the month in which the purchases are made.





# FEBRUARY-MARCH HIGHLIGHTS

- Feb. 1. Belgian minister to Canada presents letters of credence as ambassador.
- Feb. 2. Program for orderly lay-off of war workers and their transfer to military service or high-priority employment tabled in House of Commons.
- Feb. 3. Canadian Export Board established to handle export transactions of a kind that cannot be taken care of in usual way through normal commercial channels.
- Feb. 4. Cost-of-living index for January drops to 119 from 119.3 in December.
- Feb. 7. Contracts for landing craft awarded to three shipbuilding firms.  
Bank of Canada rediscount rate, charged on advances to chartered or savings banks, reduced from  $2\frac{1}{2}$  to  $1\frac{1}{2}$ %, effective February 8.
- Feb. 9. C.W.A.C. volunteers to receive \$1.05 daily pre-enlistment allowance.
- Feb. 10. Opportunities announced for discharged service personnel to broaden education by means of government grants to continue in any university or college; to apply also to non-Canadian residents and discharged service men absorbed into industry.  
Reserve Army training to be reduced from 40 to 30 days a year.
- Feb. 11. War appropriation down \$240,000,000 from last year. Figures covering fiscal year 1944-45 are \$3,650,000,000, not including mutual aid provisions.
- Feb. 14. Purchase announced of 175,000,000 bushels of Canadian wheat in 1944 by United States if transportation available.
- Feb. 15. First Turkish minister to Canada arrives in Ottawa.
- Feb. 27. Chinese minister to Canada presents letters of credence as ambassador.
- March 13. Prime Minister King announces Canadian government in full sympathy with object of representations made to Irish government by government of United States, requesting expulsion of German and Japanese diplomatic and consular representatives from Ireland; also that Canada would not wish to intervene.
- March 14. Canada and United States agree to dissolve Joint Economic Committees established in June, 1941, to assist in collaboration of two countries in utilization of their combined resources for requirements of war; now considered that development of other agencies and methods of co-operation have rendered continued operation of them unnecessary.
- March 16. Hon. W. F. A. Turgeon, formerly Canadian minister to Argentina, appointed ambassador to Mexico. Mexican ambassador to Canada also appointed.
- March 20. New Dominion labor code in effect.
- March 23. G. N. Zarubin appointed Soviet ambassador to Canada.

A. P. Henry.

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